

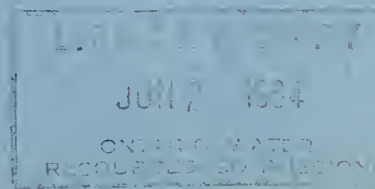
**THE  
ONTARIO WATER RESOURCES  
COMMISSION**

**REPORT ON  
WATER POLLUTION SURVEY**

**TOWN OF BURLINGTON**

**JANUARY 1963**

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1963  
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REPORT ON

WATER POLLUTION SURVEY

TOWN OF BURLINGTON

By

ONTARIO WATER RESOURCES COMMISSION

January 1963



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TOWN OF BURLINGTON - KEY MAP



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ONTARIO WATER RESOURCES COMMISSION  
WATER POLLUTION SURVEY  
TOWN OF BURLINGTON

I - SUMMARY AND RECOMMENDATIONS

This report on a water pollution survey of the Town of Burlington is based on field examinations, collection of samples, and several discussions held with municipal and industrial officials and the Halton County Health Unit.

As a result of this investigation, it was evident that wastes were gaining access to surface waters from the outfalls tabulated below:

RECEIVING WATER	OUTFALL NUMBER	DESCRIPTION AND LOCATION
Hager Creek	HA - 1.7 (P) HA - 1.7 (W)	Private Drain - Plains Rd. E. Storm Sewer - Plains Rd. E.
Rambo Creek	RW - 1.9 (I) RW - 1.4 (D) R - 0.9 (W-4)	Sewer - Glover Basket Works Ditch - Graham's Lane Storm sewer north Victoria Ave.
Roseland Creek	RO - 2.6 (D) RO - 2.4 (P) RO - 1.2 (P) RO - 1.2 (W-1) RO - 0.7 (W) RO - 0.2 (W) RO - 0.1 (W) RO - 0.0 (W-5) RO - 0.0 (W)	Ditch receiving waste from Fuller Brush Co. Ltd. Private Drain east of Harvester Rd. Private Drain - Guelph Line 21" Ø storm sewer-Guelph Line 27" Ø storm sewer-Dynes Road 12" Ø storm sewer-Robert St. 15" Ø storm sewer-Mayfair Place 18" Ø storm sewer-Lakeshore Rd. 24" Ø storm sewer-Lakeshore Rd.
Indian Creek	I - 1.6 (W-7) I - 1.6 (W-5) I - 1.6 (W-4) I - 1.6 (W-3) I - 1.6 (W-2) I - 0.4 (W-1) I - 0.2 (W)	6" Ø storm sewer-Plains Rd. E. 6" Ø storm sewer-Plains Rd. E. 12" Ø storm sewer-Plains Rd. E. 12" Ø storm sewer-Plains Rd. E. 18" Ø storm sewer-Plains Rd. E. Storm sewer-Oneida Place Storm sewer-Hwy. No. 2
Aldershot Creek	AL - 0.4 (W-1) AL - 0.4 (W)	36" Ø outlet for Aldershot Creek Geneva Street 36" Ø storm sewer-Geneva St.
Grindstone Creek	GH - 2.4 (I-1)	12" Ø sewer-J. Cooke Concrete Blocks

RECEIVING WATER	OUTFALL NUMBER	DESCRIPTION AND LOCATION
Lake Ontario	LO - 46.2 (W)	Storm sewer-west of Brant Inn
	LO - 46.3 (W)	Storm sewer - Nelson Avenue
	LO - 46.6 (W)	Storm sewer - Locust Street
	LO - 46.8 (W)	Storm sewer - Elizabeth St.
	LO - 47.8 (W-1)	27" Ø storm sewer-Guelph Line
	LO - 47.8 (W)	24" Ø storm sewer-Guelph Line

Where there is a connection carrying waste material to a storm sewer, it is the responsibility of the municipality to exclude these wastes and to ensure that proper treatment facilities are provided either by connection to the sanitary sewer or by private means. In the case of private drains or industrial sewers the responsibility rests entirely with the individual or industry.

#### RECOMMENDATIONS

As a result of the field investigation and this report it is recommended that:

1. The Town of Burlington locate and eliminate the sources of polluting material gaining access to the storm sewers as noted in the "Summary".
2. The "Water Quality and Effluent Objectives" prescribed in this report, be observed in the development of remedial and pollution-preventive measures by the municipality and industry. The objectives should apply to both existing and new sources of wastes.
3. The Glover Basket works eliminate the waste discharge to the west branch of Rambo Creek.
4. The Hercules Powder Company (Canada) Limited continue its program to eliminate the discharge of polluting material to the west branch of Rambo Creek.
5. The Fuller Brush Company Limited locate and eliminate the source of waste being discharged to the Guelph Line road ditch.

## II - INTRODUCTION

Preliminary work in this water pollution survey of the Town of Burlington was initiated in 1960 at a time when information was being secured on sewer outfalls and drainage inlets to Lake Ontario. The major portion of the field work necessary for completing this report was finalized in November 1962.

This report has been limited in its scope to the southern portion or urban area of the Town of Burlington. An exception to this is a discussion of the analytical results of samples collected from the Bronte Creek Watershed within the town limits.

Investigations of this type are made regularly by the Ontario Water Resources Commission in its program to control pollution of all surface and ground waters. The procedure followed is to examine the waters and all sources of pollution and to take the necessary steps where there is an impairment of the quality of the water. Efforts, in this way, are being made to ensure that water quality will be such that these waters may be used for all purposes such as domestic water supply, fish and wildlife, recreation, industry, agriculture, navigation and all riparian activities.

The Town of Burlington, with a residential population of about 46,374, is located on the north-west shore of Lake Ontario. The municipality covers an area of 53,750 acres.

The town is drained either directly to Lake Ontario and its adjunct Hamilton Harbour or to their tributaries. The three (3) principal streams are Bronte, Grindstone and Rambo Creeks.

Bronte Creek drains the northern and north-western sections of the municipality.

Grindstone Creek flowing to Hamilton Harbour drains the south-west corner of Burlington.

Rambo Creek, in part, drains the central area of Burlington and has its outlet to Lake Ontario east of Brant Street.

The town obtains its water supply from Lake Ontario and is partially served with municipal sewage works systems. There are

three municipal sewage treatment plants in operation and a fourth is under construction. In addition there are two privately operated "package" sewage treatment plants.

The laboratory results of samples collected are listed in the attached tables and the maps illustrating sampling points and outfalls to streams and Lake Ontario are also appended to the report.



### III - EXPLANATION AND SIGNIFICANCE OF LABORATORY RESULTS

The analyses performed generally included determinations of biochemical oxygen demand (B.O.D.), solids or turbidity, and phenolic equivalents, in addition to bacteriological (coliform) examinations. In limited instances the samples were tested for ether solubles, pH, chrome and iron.

Grab samples were collected: forty (40) ounce samples for sanitary chemical analysis, and six (6) ounce samples for bacteriological examination being used. All these laboratory tests were performed at the Ontario Water Resources Commission Laboratory in Toronto.

#### BIOCHEMICAL OXYGEN DEMAND (B.O.D.)

The B.O.D. test indicates the amount of oxygen required for stabilization of the decomposable organic matter found in the sewage, sewage effluent, polluted waters or industrial wastes by aerobic biochemical action. The time and temperature used are 5 days and 20°C respectively.

#### SOLIDS

The analyses for solids include tests for total, suspended and dissolved solids. The former measures both the solids in solution and in suspension. Suspended solids indicate the measure of undissolved solids of organic or inorganic nature whereas the dissolved solids are a measure of those solids in solution.

Land erosion, sewage and industrial wastes are significant sources of solids. Domestic sewage contains about 0.2 lbs. of suspended solids per capita per day. Solids in industrial wastes vary with the type of industry.

The effects of suspended solids in water are reflected in difficulties associated with water purification, deposition in streams, interference with navigation, and injury to the habitat of fish.

#### TURBIDITY

Turbidity is a measure of the fine suspended solids in

water such as silt and finely divided organic matter. Where suspended solids values approach 20 parts per million or less, the results are usually reported as turbidity in silica units.

#### BACTERIOLOGICAL EXAMINATIONS

The membrane filter technique was used to obtain a direct enumeration of coliform organisms. These organisms are normal inhabitants of the intestines of man and other warm-blooded animals. They are always present in large numbers in sewage and are, in general, relatively few in number in other stream pollutants. The results are reported as M.F. coliform count per 100 millilitres.

#### HYDROGEN ION CONCENTRATION

The hydrogen ion concentration (pH value) of a water indicates its relative acidity or alkalinity. It is a measure of intensity rather than of quantity. A neutral water has a pH of 7.0. Higher values are in the alkaline range and the lower in the acid range.

#### PHENOLIC COMPOUNDS

Phenols and phenolic equivalents were measured by the Gibbs Method with modifications. Phenols react with chlorine to produce intensely aromatic compounds. These compounds, even when highly diluted, may give a taste and odour to the water which is variously described as medicinal, chemical or iodoform. Phenols taint fish and are toxic to fish depending on the concentration. Normal water contains no phenolic compounds.

#### OILS AND ETHER SOLUBLE MATERIALS

These include oils and all other ether soluble materials such as tarry substances and greases. The presence of these pollutants renders water difficult and sometimes impractical to treat, either for industrial or domestic use. Oils make the stream unsightly and the water unfit for bathing. They coat water craft and are a hazard to wild fowl.



#### IV - WATER QUALITY AND EFFLUENT OBJECTIVES

The desirable objectives for all surface waters in the Province of Ontario are as follows:

5-Day B.O.D.	Not greater than 4 p.p.m.
M.F. Coliform Count	Not greater than 2,400/100 ml.
Phenolic Equivalents	
- Average	Not greater than 2 p.p.b.
- Maximum	Not greater than 5 p.p.b.
pH Range	6.7 to 8.5

A few pertinent maximum concentration limits of contaminants in storm sewers, sewage treatment plant and industrial waste effluents are listed below. It is noted that adequate protection for surface waters, except in certain specific instances influenced by local conditions, should be provided if the following concentrations and pH range, are not exceeded.

5-Day B.O.D.	Not greater than 15 p.p.m.
Suspended Solids	Not greater than 15 p.p.m.
Phenolic Equivalents	Not greater than 20 p.p.b.
Ether Solubles (oil)	Not greater than 15 p.p.m.
pH Range	5.5 to 10.6

## V - MUNICIPAL WATER POLLUTION CONTROL PROJECTS

### SEWAGE WORKS SYSTEMS

Only two sections of the developed portions of the municipality are presently served with sewage works systems. A third area namely a school and a shopping centre at Aldershot is also serviced. The Burlington Public School Board and Canadian Cannery Limited operate "package" sewage treatment plants which serve a public school and a manufacturing firm respectively.

The sewer area presently contributory to the Drury Lane sewage treatment plant is roughly bounded on the north and south sides by the H.E.P.C. transmission line and Lake Ontario respectively. Walker's Line is approximately the eastern limit of the area whereas Brant Street and the Canadian National Railway is the western limit. The Drury Lane plant provides secondary treatment of the activated sludge type, chlorination of the effluent and sludge digestion. The effluent discharges to Lake Ontario.

The Elizabeth Gardens sewage treatment plant presently serves an area situated between Highway No. 2 and the Queen Elizabeth Way on the south and north respectively. The Town Line is the eastern boundary and includes all of Lot. No. 6 west of Appleby Line. The Elizabeth Gardens plant also provides secondary treatment of the activated sludge type, effluent chlorination and sludge digestion. The effluent discharges to Lake Ontario.

At Aldershot, the treatment plant for the high school and shopping centre furnishes primary treatment with effluent chlorination and sludge removal. The effluent discharges to Hamilton Harbour.

Details of these various plants are as follows:

#### Drury Lane S.T.P.

Operated by:	Ontario Water Resources Commission
Treatment:	Bar Screening, grit removal, primary settling, aeration, final settling, sludge digestion, effluent chlorination.
Design Flow:	2.5 M.G.D.

## Actual Flow Data (1962):

Average	2.44 M.G.D.
Max. Month (Nov.)	95.0 M.G.
Avg. During Max. Month	3.17 M.G.D.
Max. Daily	3.74 M.G.

Receiving Water: Lake Ontario

TABLE I - SUMMARY OF 1962 ANALYTICAL RESULTS - FINAL EFFLUENT

	B.O.D. 5-Day p.p.m.	SOLIDS		
		Total p.p.m.	Susp. p.p.m.	Diss. p.p.m.
Average	18.2	601	24	577
Maximum	51.0	692	64	676
Minimum	5.0	362	5	340
No. of Samples	44	44	44	44

Elizabeth Gardens S.T.P.

Operated by: Ontario Water Resources Commission

Treatment: Screening, grit removal, primary settling, aeration, final settling, effluent chlorination, sludge digestion.

Design Flow: 0.75 M.G.D.

## Actual Flow Data (1962):

Average	0.43 M.G.D.
Max. Month (Nov.)	21.27 M.G.
Avg. During Max. Month	0.71 M.G.D.
Maximum Daily	1.402 M.G.

TABLE 2 - SUMMARY OF 1962 ANALYTICAL RESULTS - FINAL EFFLUENT

	B.O.D. 5-Day p.p.m.	SOLIDS		
		Total p.p.m.	Susp. p.p.m.	Diss. p.p.m.
Average	22.2	594	25	569
Maximum	96	910	70	850
Minimum	3.2	406	3	376
No. of Samples	51	51	51	51

Aldershot S.T.P.

Operated by: Town of Burlington

Area Served: High School, shopping centre and proposed subdivision.

Treatment: Bar screen, settling tank, scum and sludge removal, effluent chlorination.

Design Flow: 0.12 M.G.D.

Design Population: 1,500 persons

Receiving Water: Hamilton Harbour

Woodview Public School S.T.P.

Operated by: Burlington Public School Board

Area Served: Woodview Public School

Treatment: Bar screening, aeration, final settling, effluent chlorination and sludge storage.

Design Flow: 7,000 U.S. G.P.D.

Present Flow: Not Available

Design Population: 420 persons

Population Served: 220 persons

Receiving Water: Tributary of Grindstone Creek

Canadian Cannery Limited S.T.P.

Operated by: Canadian Cannery Limited

Treatment: Bar screening, mechanical aeration, final settling.

Design Flow: 4,000 U.S. G.P.D.

Present Flow: 4,500 U.S. G.P.D.

Population Served: 90 persons

Receiving Water: Tributary of Shoreacres Creek

It will be noted that the average daily flow in 1962 of 2.44 M.G. to Burlington's Drury Lane sewage treatment plant corresponded to the design flow of 2.5 M.G.D. In November 1962, a maximum flow of 95 M.G. was recorded. This would represent an average daily flow of 3.74 M.G. These high flows would impair the quality of the final effluent. Wastes from the Hercules Powder Company (Canada) Limited have reportedly caused treatment problems at the Drury Lane plant.



The averages of the analyses of forty-four samples of effluent obtained from this plant in 1962 are shown on Table I. The B.O.D. and suspended solids contents of 18.2 ppm and 24 ppm respectively, exceeded the objective maximums of 15 ppm recommended for effluents.

In 1962, the average daily flow to the Elizabeth Gardens sewage treatment plant was 0.43 M.G.D. compared to the design flow of 0.75 M.G.D. The records indicated a maximum flow of 21.27 M.G. during the month of November 1962. This would represent an average daily flow of 0.71 M.G. during that period.

It can be seen that this plant is not hydraulically overloaded, however, organic overloading has been reported. This condition has been attributed to the strong wastes from the F.W. Fearman Company Limited meat packing plant.

The average B.O.D. and suspended solids contents in fifty-one samples of final effluent collected at the Elizabeth Gardens plant in 1962 revealed an unsatisfactory effluent for discharge to Lake Ontario. The average B.O.D. of 22.2 ppm and the average suspended solids content of 25 ppm shown in Table 2 were in excess of the 15 ppm allowable. Regardless of this overloading, it should be pointed out that the treatment efficiency was high.

In 1962, construction began on the Skyway sewage treatment plant. This works is scheduled to commence operation in 1963. Extension of the east end trunk sanitary sewer will reduce the hydraulic loading on the Drury Lane plant. Similarly a reduction in the hydraulic and organic loading on the Elizabeth Gardens plant will be effected in 1963 by redirecting a portion of the flow from the Elizabeth Gardens plant to the Drury Lane treatment plant. It is hoped that this flow which contains the waste from the Fearman packing house can be taken into the Skyway plant later in 1963.

The Skyway sewage treatment plant will also serve the Aldershot area of Burlington. Elimination of the Aldershot plant is planned. Sewage collection and adequate treatment facilities

are the objectives for the entire area.

#### REFUSE DISPOSAL

Refuse is disposed of by the sanitary landfill method. The site of this operation is located on the west side of King Road north of Plains Road East. Periodic examinations of this landfill operation will be made in the future to determine if any leachate is emanating from the site causing water pollution.



## VI-SURFACE WATER QUALITY AND SOURCES OF POLLUTION

### HAGER CREEK

Domestic wastes were observed gaining access to the tributary of Hager Creek at 1343 Plains Road East at the time of the examination on November 21, 1962.

Sample results revealed that the waste flows from the Plains Road storm sewer HA-1.7 (W) and from the ditch on the north side of Niagara Brand Chemicals Limited HA-1.6 (D) had B.O.D. and/or suspended solids concentrations which exceeded the objective maximums. The analytical results revealed that the effluent from outlet HA-1.6 (I) from Niagara Brand Chemicals Limited was of satisfactory quality. However, it was noted that the effluent was hot and contained a small quantity of oil which created a faint iridescence in the receiving stream.

Two of the three samples taken from Hager Creek at its mouth during the past year have shown adverse coliform results.

A tabulation of the outfalls to Hager Creek and the laboratory results of samples collected are given in Table 3.

### RAMBO CREEK

The results obtained at the time of the survey and presented in Table 4 indicated that Rambo Creek was free from pollution from station R-2.7 at Mountainside Drive downstream to its junction with the west branch of Rambo Creek immediately downstream from Courtland Place.

The north branch of Rambo Creek at Brant Street at sampling station RWN-3.0 was also free from pollution.

The waters of the west branch of Rambo Creek at Brant Street north of Plains Road East at station RW-2.6 were in a satisfactory condition but showed some bacterial impairment at Plains Road East at station RW-1.9.

Wastes from outlet No. RW-1.9 (I) located at the rear of Glover Basket Works were found to be discharging to this branch of Rambo Creek. The effluent had a very offensive odour and a biochemical demand of 300 p.p.m.

A small amount of chromate waste was observed emanating from the property of Alchem Ltd. on November 28, 1962. No such

discharge was noted, however, on November 19, 1962. The discharge from this plant was reported to be of a temporary nature as plans were being made for tank storage and liquid haulage of the waste to be disposed on land early in 1963. The drainage had chrome and phenol contents of 15 p.p.m. and 3,000 p.p.b. respectively. The west branch of Rambo Creek downstream from this source of pollution revealed 0.25 p.p.m. of chrome and a phenol content of 300 p.p.b. This latter result is much in excess of the desired maximum phenol objective of 5 p.p.b.

Pollution of the west branch of Rambo Creek below Ghent Avenue and of Rambo Creek still presents a problem in the Town of Burlington. Numerous complaints have been made to government agencies regarding the condition of this stream. Complaints concerning the condition of the Rambo Creek Watershed led to the installation of waste treatment facilities at the Hercules Powder Company (Canada) Limited late in 1960. These new facilities were placed into operation early in 1961.

Wastes from this company are discharged either to the sanitary sewer or to a railway ditch draining to the west branch of Rambo Creek. Uncontaminated cooling water from the distillation tower was by far the largest amount of water discharged to the drainage system and thence to the Rambo Creek Watershed. A 25 ft. x 40 ft. oil separator pond, served to remove oil contamination from the surface runoff about the tall oil plant and the railway spur line used as a loading and unloading depot for tank cars. This pond also serves to trap oil from the first washing out of the occasional tank car that requires servicing. On the second wash, however, soda ash was added to the water to achieve the final cleaning, and this relatively small discharge by-passed the pond as the chemical would dissolve the trapped oil in a separator. A small part of the cooling water from distillation was admitted to the pond system to keep it in a fresh and sanitary state. The effluent from this pond was heavily diluted with the by-passed portion of cooling water. The frequent milky appearance in Rambo Creek and its west branch, which has been attributed to the waste discharges from the

Hercules Powder Company (Canada) Limited, was discussed with the management. Changes were being made at the industry to remove additional sources of waste that were being discharged to the Rambo Creek Watershed. A cooling tower is to be installed in January 1963 to re-circulate waters used for cooling purposes. There will be a marked reduction in the amount of water discharged to the Rambo Creek Watershed, the exception being when make-up water is added. A re-assessment of the discharges to this watershed are planned for March 1963 when the above changes should be completed and in operation. If it is found that the effluent from the lagoon remains a source of pollution it will be necessary to exclude this effluent from the watercourse exclusive of the uncontaminated cooling water. The poor quality of the water in Rambo Creek is reflected in the samples obtained at Blairholm Avenue. The B.O.D. values of 16 p.p.m. and 20 p.p.m. evident in two samples were in excess of the recommended maximum objective of 4 p.p.m. A bacteriological count of 7,000 per 100 ml. was also revealed by laboratory tests. The phenol content of 80 p.p.b. greatly exceeded the maximum objective of 5 p.p.b., permitted in creek waters.

The B.O.D. and coliform concentrations in the effluent from the storm sewer, designated as R-0.9 (W-4) was unsatisfactory. Sample results indicated significant pollution in Rambo Creek at Victoria Avenue at sampling station R-0.9. B.O.D. and coliform concentrations of 22 p.p.m. and 20,000 per 100 ml. were recorded here respectively. At Highway No. 2, Rambo Creek had a B.O.D. of 7.6 p.p.m. and a bacteriological content of 5,700 per 100 ml., when sampled on November 19, 1962. This is a substantial increase in the biochemical oxygen demand since the previous analysis of August 20, 1962, when a B.O.D. value of 1.8 p.p.m. was reported. A phenol content of 5 p.p.b. was reported for this location in August, 1962. A phenol content of 5 p.p.m. is the maximum concentration permitted in watercourses. The average phenol concentration for this watercourse exceeded the desired objective average of 2 p.p.b.



## ROSELAND CREEK

The laboratory results of the samples pertinent to Roseland Creek are given in Table 5. The discharge of polluting material to the road ditch from the Fuller Brush Company Limited, Guelph Line resulted in a deterioration of the receiving stream at Harvester Road. The analyses revealed that the B.O.D. and phenol concentrations of this effluent increased the B.O.D. and phenol content in the stream from 2.8 p.p.m. to 8.8 p.p.m. and from 0 p.p.b. to 12 p.p.b. respectively.

High coliform counts were revealed in the Guelph Line storm sewer RO-1.2 (W-1), New St. storm sewer RO-0.7 (W-1), Dynes Rd. storm sewer RO-0.7 (W), Robert St. storm sewer RO-0.2 (W), Mayfair Place storm sewer RO-0.1 (W) and in the Lakeshore Rd. storm sewers RO-0.0 (W-5) and RO-0.0 (W).

The B.O.D. concentrations revealed in the Lakeshore Rd. storm sewers RO-0.0 (W-5) and RO-0.0 (W) exceeded the maximum allowable of 15 p.p.m.

The coliform and B.O.D. results for Roseland Creek at sampling station RO-0.0 at Lakeshore Rd., exceeded the desired objective maximums. Since the water works intake for the Town of Burlington is located in Lake Ontario off the mouth of this watercourse it is imperative that the quality of the water in this stream be zealously protected.

## TUCK AND SHOREACRES CREEKS

The outfalls to Tuck and Shoreacres Creeks and the laboratory results of the samples collected at Lakeshore Road are shown in Tables 6 and 7 respectively. The bacteriological qualities of both streams at Lakeshore Road were unsatisfactory. The B.O.D. of the effluent from the Canadian Cannery Limited sewage treatment plant was satisfactory when sampled on November 28, 1962.

## STREAM "C"

Table 8 gives the laboratory results of samples obtained from stream "C" at Lakeshore Road. It will be noted that the bacteriological condition of the stream at this location was unsatisfactory.

## APPLEBY AND SHELDON CREEKS

The analytical results of the samples collected from

Appleby and Sheldon Creeks are presented in Tables 9 and 10 respectively. The results revealed no water impairment.

#### INDIAN CREEK

Sample results revealed waste flows to Indian Creek at Plains Road East, from the following outlets I-1.6 (W-7), I-1.6 (W-5), I-1.6 (W-4), I-1.6 (W-3) and I-1.6 (W-2). The tributary of Indian Creek at Plains Road East showed bacterial impairment. The results are presented in Table 11.

The high coliform counts recorded in the Oneida Place storm sewer I-0.4 (W-1) and the Highway No. 2 storm sewer I-0.2 (W) were due in part for the adverse condition of Indian Creek at Hamilton Harbour. The B.O.D. and coliform results of 47 p.p.m. and 110,000 per 100 millilitres respectively, exceeded the desired maximum objectives.

#### STREAM "N" & "M"

The laboratory results given in Tables 12 and 13 revealed that streams "N" and "M" were not of acceptable quality with respect to coliform counts at sampling stations N-0.0 and M-0.0. The B.O.D. of the stream at station N-0.0 was also unsatisfactory. This stream and its tributary were both of poor quality south of Deborah Crescent.

#### FALCON AND TEAL CREEKS AND STREAM "J"

The bacteriological condition of stream "J" and Teal Creek were not acceptable just above Hamilton Harbour. Falcon Creek at Townshend Avenue had B.O.D. and coliform values of 4.6 p.p.m. and 19,000 per 100 millilitres respectively, but was of satisfactory quality at North Shore Boulevard upstream from Hamilton Harbour. The laboratory results of the samples obtained are presented in Tables 14, 15 and 16.

#### ALDERSHOT CREEK

The sample results given in Table 17 revealed that the B.O.D. and coliform values for the discharge from the tiled section of Aldershot Creek at Geneva Street were unsatisfactory. A coliform count of 60,000 was also evident in the discharge from the outlet designated AL-0.4 (W) at Geneva Street.

#### GRINDSTONE CREEK

The analytical results of samples collected from

Grindstone Creek are presented in Table 18.

Stream surveys have shown that Grindstone Creek was polluted downstream from Waterdown at station G-4.5 mainly by the waste discharges from storm sewers in that municipality. An improvement was noted at York and Hidden Valley Roads with respect to the biochemical oxygen demand but the coliform counts were still unsatisfactory.

The waste discharges from the two outlets of J. Cooke Concrete Blocks Limited had an adverse effect on Hendrie Creek. There is a marked improvement in the stream before its confluence with Grindstone Creek as settling basins have been provided at this location to remove the high suspended solids in the said wastes. Although Hendrie Creek which is used to convey the wastes from the washing plant has a very muddy appearance upstream from the settling basins, a marked reduction is effected. It should be noted however that the B.O.D. and suspended solids contents of the pond effluent still indicate the presence of polluting material. The effluent from a "package" type sewage treatment plant operated by the Burlington Board of Education and serving the Woodview Public School on Flatt Road is discharged to a tributary of Hendrie Creek. This plant has been in operation only a short period of time and to date its efficiency has not been evaluated. A sample of effluent collected on November 27, 1962, indicated that the B.O.D. of coliform values were satisfactory but the suspended solids concentration was somewhat high.

Analyses showed that Grindstone Creek was substantially polluted at Highway No. 2.

#### BRONTE CREEK

The analytical results of the samples collected from Bronte Creek within Burlington are given in Table 19. Prior to the sampling survey in 1962 the samples obtained for chemical analysis and bacteriological examination were satisfactory. However, five of the eight samples collected in 1962 showed coliform organisms in excess of the desired maximum objective of 2,400 per 100 millilitres. The chemical results were acceptable.



## LAKE ONTARIO AND HAMILTON HARBOUR

Tabulated in Tables 20 and 21 respectively are brief descriptions of all presently located sewer outlets to Lake Ontario and its adjunct Hamilton Harbour. Tributary watercourses have not been discussed in this section of the report as they have been included in the foregoing sections on streams.

The analytical results revealed that the B.O.D. and suspended solids concentrations of the effluents from six storm sewer outlets to Lake Ontario were unsatisfactory. These outlets are noted below:

<u>Sampling Point No.</u>	<u>Location</u>
LO-46.2 (W)	West of Brant Inn
LO-46.3 (W)	Nelson Avenue
LO-46.6 (W)	Locust Street
LO-46.8 (W)	Elizabeth Street
LO-47.8 (W-1)	Guelph Line
LO-47.8 (W)	Guelph Line

Phenol contents exceeded the maximum permissible limits of 20 p.p.b. at the following sampling points, namely, Locust Street storm sewer LO-46.6 (W) and Elizabeth Street storm sewer LO-46.8 (W).

The Aldershot sewage treatment plant appeared to be producing an effluent of satisfactory quality for a primary treatment plant. The B.O.D. and suspended solids concentrations were 39 p.p.m. and 20 p.p.m. respectively. The effluent is chlorinated for disinfection purposes. The coliform count of 0 per 100 ml. indicates the effectiveness of this chlorination.

## VII WATER QUALITY - SWIMMING AREAS

The swimming areas in the Town of Burlington are sampled regularly during the summer months by the Halton County Health Unit.

With the kind permission of the health unit officials, the number of samples collected for bacteriological examination and the number of samples showing results in excess of the OWRC objective for each swimming area from 1959 to 1962 inclusive, were tabulated in Table 22. Comparative figures for 1962 are given in parenthesis. The sampling points are shown on the Key Plan.

The laboratory results of samples collected from the various bathing areas show the bacterial quality of the waters to be highly variable. This is influenced by many conditions such as wind, water currents, and sewer overflows. The public using these waters for swimming may also contribute bacterial pollution.

Excessive bacterial concentrations at bathing areas are significant from a public health standpoint and often cause economic losses when areas must be closed during unsafe periods. Waterfront property values are also adversely affected by unsafe or undesirable conditions caused by pollution.

VIII - CONCLUSIONS

This municipal pollution survey of the Town of Burlington consisted of locating and tabulating municipal, industrial and private outfalls on a series of maps and sampling the discharge from those wherein flows were noted. In addition to this, sixteen of the seventeen creeks which are within the municipal boundaries and tributary to either Lake Ontario or Hamilton Harbour were sampled.

As a result of this survey, it was found that 13.3 per cent of the drainage inlets and relief or storm sewer outlets to the 17 watercourses contained inadequately treated waste water flows. This was based on 25 outlets out of a total of 188 which were located on these creeks. Along Burlington's lakefront, 6 outlets out of 25 or 24 per cent were found to contain polluting material. In the Hamilton Harbour area none of the 7 outlets located contained adversely polluted flows.

There are three municipal sewage treatment plants presently in operation, two of which, namely the Drury Lane and Elizabeth Gardens plants are operated by the Ontario Water Resources Commission. The third plant at Aldershot provides primary treatment only and is a temporary installation. During 1962 the construction of the new Skyway sewage treatment plant was initiated and subsequent to its completion in 1963 and the provision of sanitary trunk sewers it is planned to eliminate the temporary plant and to reduce the loading on the two plants operated by this Commission. When these changes are effected, it is expected that the effluent quality from all the municipal sewage treatment plants will meet the Commission's objectives. The Town of Burlington is to be commended on their active sewage works program which at present appears to be keeping ahead of new development.

It is noted that no samples were collected from Lake Ontario or Hamilton Harbour during this survey, however reference may be made to this Commission's report dated May, 1962 entitled "Lakefront Survey of Water Quality, Waste Outfalls and Drainage

Inlets of Lake Ontario within the area Town of Burlington to Scarborough Township." During 1961, bacteriological samples were collected on 14 different days spaced between June 7th and October 12th from 9 sampling points on the lake opposite Burlington. Upon examination only 2 of 126 samples showed coliform counts exceeding the Commission's objective maximum of 2400 coliforms per 100 ml. Based on these results, the water quality in Lake Ontario at the locations sampled in 1961 could be considered as satisfactory.

Generally it can be said that the Town of Burlington is active in their pollution abatement program particularly emphasized by the construction of new sewage treatment facilities and the continuous expanse of sanitary sewer services. However, as a result of this survey inadequately treated wastes were observed emanating from 23 storm sewer outlets, 3 industrial outlets, 3 private outlets, and 2 ditches.

In conclusion, this survey has shown that action is required by the Town of Burlington, the industries, and private individuals to eliminate or adequately treat the waste discharges from the isolated sources indicated in this report. It is expected that those concerned will cooperate fully in continuing the pollution abatement program set out by this Commission.



ALL ANALYSES EXCEPT PH IN PPM  
UNLESS OTHERWISE INDICATED

TABLE 3 - OUTFALL TABULATION AND ANALYTICAL RESULTS - HAGER CREEK

SAMPLING POINT NO.	LOCATION	FIG.	DATE EXAMINED	COLIFORMS PER 100 ML I.N. M.F.	5-DAY B.O.D.	SOLIDS TOTAL SUSP. DISS.	TURBID- ITY	PHENOLS (PPB)	SOLUBLES	PH	CHROME	COPPER	IRON
HA-1.7 P	PRIVATE DRAIN PLAINS RD. E.	1A	NOV. 21/62		DOMESTIC WASTES EVIDENT								
HA-1.7 W-1	30" Ø STORM SEWER PLAINS RD. E.	1A	NOV. 21/62		NO FLOW NOTED								
HA-1.7 W	STORM SEWER PLAINS RD. E.	1A	NOV. 21/62	2,800	27	322 94 228							
HA-1.6 D-1	DITCH SOUTH C.N.R. TRACKS	1A	NOV. 21/62		NO FLOW NOTED								
HA-1.6 D	DITCH NORTH SIDE NIAGARA BRAND CHEMICAL LTD.	1A	NOV. 21/62	730	11	1798 138 1660		15					55
HA-1.6	TRIBUTARY OF HAGER CREEK AT C.N.R. TRACKS	1A	NOV. 20/62	9,800	5.1	644 - -	7.5						
HA-1.6 1	8" Ø SEWER NIAGARA BRAND CHEMICAL LTD.	1A	NOV. 21/62	0	2.2	248 4 244		0					
HA-1.5 D	DITCH NIAGARA BRAND CHEMICAL LTD.	1A	NOV. 21/62		NO FLOW NOTED								
H-0.7	HAGER CREEK AT RICHMOND STREET	1A	NOV. 20/62	19,000	4.4	818 - -	23						
H-0.6 W	STORM SEWER BALDWIN STREET	1A	NOV. 20/62		PARTIALLY BLOCKED - FLOW INSUFFICIENT FOR SAMPLING								
H-0.5 W-1	STORM SEWER OPPOSITE EAST END CLARK AVENUE	1A	NOV. 20/62		OUTLET BLOCKED								
H-0.5 W	10" Ø STORM SEWER EDEN PLACE	1A	NOV. 20/62		NO FLOW NOTED								

ALL ANALYSES EXCEPT PH REPORTED IN PPM  
UNLESS OTHERWISE INDICATED

TABLE 3 - (CONT.)

SAMPLING POINT NO.	LOCATION	FIG.	DATE EXAMINED	COLIFORMS PER 100 ML I.N.	M.F.	5-DAY B.O.D.	SOLIDS TOTAL SUSP. DISS.	TURBID- ITY	PHENOLS (PPB)	ETHER SOLUBLES	PH	CHROME	COPPER	IRON
H-0.4 W-3	STORM SEWER BIRCH AVE.	I	NOV. 20/62			NO FLOW NOTED								
H-0.4 W-2	STORM SEWER BIRCH AVE.	I	NOV. 20/62			NO FLOW NOTED								
H-0.4 W-1	STORM SEWER BIRCH AVE.	I	NOV. 20/62			NO FLOW NOTED								
H-0.4 W	STORM SEWER BIRCH AVE.	I	NOV. 20/62			NO FLOW NOTED								
H-0.3 W-2	STORM SEWER CAROLINE ST.	I	NOV. 20/62			NO FLOW NOTED								
H-0.3 W-1	12" Ø STORM SEWER CAROLINE ST.	I	NOV. 20/62			NO FLOW NOTED								
H-0.3 W	12" Ø STORM SEWER CAROLINE ST.	I	NOV. 20/62			NO FLOW NOTED								
H-0.2 W-2	12" Ø STORM SEWER ONTARIO ST.	I	NOV. 20/62			NO FLOW NOTED								
H-0.2 W-1	12" Ø STORM SEWER ONTARIO ST.	I	NOV. 20/62			NO FLOW NOTED								
H-0.2 W	15" Ø STORM SEWER ONTARIO ST.	I	NOV. 20/62			NO FLOW NOTED								
H-0.1 W-1	12" Ø STORM SEWER ELGIN ST.	I	NOV. 20/62			NO FLOW NOTED								
H-0.1 W	12" Ø STORM SEWER ELGIN ST.	I	NOV. 20/62			NO FLOW NOTED								
H-0.0	HAGER CREEK AT WATER ST.	I	SEPT. 19/60	1,000	8.4	880	18	862	-	2				
				1,200	12	620	-	16	-	-				
				10,000	2.8	618	-	12.5	3					
				12,600	1.2	826	-	1.8	2					
				990	4.0	852	-	12.0	-	-				



TABLE 4 - OUTFALL TABULATION AND ANALYTICAL RESULTS - RAMBO CREEK

SAMPLING POINT NO.	LOCATION	FIG.	DATE EXAMINED	COLIFORMS PER 100 ML 5-DAY		B.O.D. 5-DAY	SOLIDS TOTAL SUSP.DISS.	TURBID- ITY	PHENOLS (PPB)	ETHER SOLUBLES	PH	CHROME	COPPER	IRON
				I.N.	M.F.									
				FLOW INSUFFICIENT FOR SAMPLING										
R-2.7 W	18" Ø STORM SEWER MOUNTAIN INSIDE	2B	NOV. 15/62											
R-2.7	RAMBO CREEK AT MOUNTAIN INSIDE DR. HEPIC LINES	2B	NOV. 19/62	74	2.4	468	-	18.0						
RA-3.1 W	20" Ø STORM SEWER MOUNTAIN GROVE AVE.	2B	NOV. 15/62			NO FLOW NOTED								
RA-3.1 W-1	18" Ø STORM SEWER AUGUSTINE DR.	2B	NOV. 15/62			NO FLOW NOTED								
RA-3.0 W	12" Ø STORM SEWER	2B	NOV. 15/62			NO FLOW NOTED								
R-2.2	RAMBO CREEK AT QUEENSWAY DR.	2B	NOV. 19/62	12	2.2	466	-	11.0						
R-2.0 W	12"Ø STORM SEWER BRENDA CRES.	2B	NOV. 15/62			NO FLOW NOTED								
R-1.5 W	24" Ø STORM SEWER WEST END PROSPECT AVE.	2A	NOV. 19/62			NOT EXAMINED								
R-1.4	RAMBO CREEK AT GHENT AVE.	1A	NOV. 19/62	4,200	2.8	490	-	5.5						
R-1.4 W	15" Ø STORM SEWER GHENT AVE.	1A	NOV. 19/62			NO FLOW NOTED								
R-1.4 W-1	15" Ø STORM SEWER GHENT AVE.	1A	NOV. 19/62			NO FLOW NOTED								
R-1.2 W	12" Ø STORM SEWER DEYNCOURT DR.	1A	NOV. 19/62			NO FLOW NOTED								
R-1.1	RAMBO CREEK AT COURTLAND PL.	1A	NOV. 28/62	1,900	3.2	482	-	9.5	0					8.1

ALL ANALYSES EXCEPT PH REPORTED IN PPM  
UNLESS OTHERWISE INDICATED.

TABLE 4 - (CONT)

SAMPLING POINT NO.	LOCATION	FIG.	DATE EXAMINED	COLIFORMS PER 100 ML M.F.	5-DAY B.O.D.	SOLIDS TOTAL SUSP. DISS.	TURBID- ITY	PHENOLS (PPB)	ETHER SOLUBLES	PH	CHROME	COPPER	IRON
R-1.1 W	10" Ø STORM SEWER COURTLAND PL.	1A	NOV. 19/62		NO FLOW NOTED								
RWN-3.0	NORTH BRANCH AT BRANT ST.	1B	NOV. 19/62	178	1.9	364 -	5.5						
RWN-2.8 W	18" Ø STORM SEWER MOUNT FOREST DR.	1B	NOV. 19/62		NO FLOW NOTED								
RW-2.6	WEST BRANCH AT BRANT ST.	1B	NOV. 19/62	650	2.7	452 -	10.5						
RWF-2.6 W	12" Ø STORM SEWER MOUNTAIN SIDE DR.	1B	NOV. 19/62		NO FLOW NOTED								
RWF-2.6 W-1	21" Ø STORM SEWER MOUNTAIN SIDE DR.	1B	NOV. 19/62		NO FLOW NOTED								
RWF-2.5 W	12" Ø STORM SEWER DE QUINCY CR.	1B	NOV. 19/62		NO FLOW NOTED								
RW-2.0 D	10" Ø CULVERT FROM CHURCHILL AVE. DITCH	1B	NOV. 19/62		NO FLOW NOTED								
RW-1.9	WEST BRANCH AT PLAINS RD. E.	1A	NOV. 19/62	17,000	2.2	486 -	6.5						
RW-1.9 I	6" Ø SEWER GLOVER BASKET WORKS	1A	NOV. 19/62	5,400	300	890 29	861						
RW-1.9 D	DITCH RECEIVING DRAINAGE FROM ALCHEM LTD.	1A	NOV. 19/62	2,300	2.4 65	490 - 1118 71	- 1047	40 3000	-	7.5 8.0	15		
RW-1.4 W-2	15" Ø STORM SEWER PROSPECT ST.	1A	NOV. 16/62		NO FLOW NOTED								

ALL ANALYSES EXCEPT pH REPORTED IN PPM  
UNLESS OTHERWISE INDICATED

TABLE 4 - (CON'T)

SAMPLING POINT NO.	LOCATION	FIG.	DATE EXAMINED	COLIFORMS PER 100 ML		5-DAY B.O.D.	TOTAL SUSP. DISS.	TURBID- ITY	PHENOLS (PPB)	ETHER SOLUBLES	PH	CHROME	COPPER	IRON
				I.N.	M.F.									
RW-1.4	WEST BRANCH RAMBO CREEK ABOVE RW-1.4 (D)	1A	MAY 4/62 NOV. 28/62		21,100	4.4 8.2	750 534	8 -	742 -		11.5			
RW-1.4 D	21" Ø CULVERT FROM DITCH ON GRAHAM'S LANE	1A	MAR. 9/60 SEPT. 15/60 SEPT. 20/60 DEC. 6/60 AUG. 29/61 SEPT. 26/62 NOV. 19/62 NOV. 28/62	187,000	620	1156	68	1088		35				
						46	282	20	262					
						16	356	34	322					
						285	916	48	868	247				
						12	498	-	-					
						49	308	20	288					
						9	236	9	227					
						19	466	19	447	20				
RW-1.4 W-1	15" Ø STORM SEWER GHENT AVE.	1A	NOV. 16/62			NO FLOW	NOTED							
RW-1.4 W	15" Ø STORM SEWER BRANT ST.	1A	NOV. 16/62			NO FLOW	NOTED							
R-1.1 R	8" RELIEF SEWER NO. 3 SEWAGE PUMPING STATION	1A	NOV. 16/62			NO FLOW	NOTED							
R-1.0	RAMBO CREEK AT BLAIRHOLM AVE.	1A	DEC. 6/60 NOV. 28/62		7,000	20 16	656 514	94 -	562 -	31 80	8.2 7.9			
R-1.0 W-1	8" Ø STORM SEWER BLAIRHOLM AVE.	1A	NOV. 16/62			NO FLOW	NOTED							
R-1.0 W	12" Ø STORM SEWER COURTLAND DR.	1A	NOV. 16/62			FLOW INSUFFICIENT FOR SAMPLING								
R-0.9 W-4	12" Ø STORM SEWER NORTH VICTORIA AVE.	1A	NOV. 19/62		16,000	76	242	28	214					
R-0.9 W-3	12" SQ. STORM SEWER-VICTORIA AVE.	1A	NOV. 16/62			NO FLOW	NOTED							

ALL ANALYSES EXCEPT PH REPORTED IN PPM  
UNLESS OTHERWISE INDICATED

TABLE 4 - (CONT)

SAMPLING POINT NO.	LOCATION	FIG.	DATE EXAMINED	COLIFORMS PER 100 ML		5-DAY B.O.D.	SOLIDS TOTAL SUSP. DISS.	TURBID- ITY	PHENOLS (PPB)	ETHER SOLUBLES	PH	CHROME	COPPER	IRON
				I. N.	M.F.									
R-0.9 W-2	12" SQ. STORM SEWER VICTORIA AVE.	1A	NOV. 16/62			NO FLOW NOTED								
R-0.9 W-1	12" SQ. STORM SEWER VICTORIA AVE.	1A	NOV. 16/62			NO FLOW NOTED								
R-0.9 W	12" SQ. STORM SEWER VICTORIA AVE.	1A	NOV. 16/62			NO FLOW NOTED								
R-0.9	RAMBO CREEK AT VICTORIA DR.	1A	NOV. 19/62		20,000	22	444 -	10.5						
R-0.8 W	10" Ø STORM SEWER HATTEN PL.	1	NOV. 16/62			NO FLOW NOTED								
R-0.7 W	12" Ø STORM SEWER EMERALD CR.	1	NOV. 16/62			NO FLOW NOTED								
R-0.6 W-1	12" Ø STORM SEWER CAROLINE ST.	1	NOV. 16/62			NO FLOW NOTED								
R-0.6 W	12" Ø STORM SEWER CAROLINE ST.	1	NOV. 16/62			NO FLOW NOTED								
R-0.5 W	12" Ø STORM SEWER MARIA ST.	1	NOV. 16/62			FLOW INSUFFICIENT FOR SAMPLING								
R-0.4 R	10" Ø RELIEF SEWER PEARL ST.	1	NOV. 19/62			NO FLOW NOTED								
R-0.4 W-1	8" Ø STORM SEWER JAMES ST.	1	NOV. 19/62			NO FLOW NOTED								



ALL ANALYSES EXCEPT PH REPORTED IN PPM  
UNLESS OTHERWISE INDICATED

TABLE 4 - (CON'T)

SAMPLING POINT NO.	LOCATION	FIG.	DATE EXAMINED	COLIFORMS PER 100 ML I.N. M.F.	5-DAY B.O.D.	SOLIDS TOTAL SUSP. DISS.	TURBID- ITY	PHENOLS (PPB)	ETHER SOLUBLES	PH	CHROME	COPPER	IRON
R-0.4 W	8" Ø STORM SEWER JAMES ST.	I	NOV. 19/62		NO FLOW NOTED								
R-0.3 W	12" Ø STORM SEWER MARTHA ST.	I	NOV. 16/62		NO FLOW NOTED, SUBMERGED IMMEDIATELY BELOW R - 0.3 (R)								
R-0.3 R	12" Ø RELIEF SEWER MARTHA ST.	I	NOV. 16/62		NO FLOW NOTED								
R-0.1 R-3	18" Ø RELIEF SEWER NO. 1 SEWAGE PUMPING STATION	I	NOV. 16/62		NO FLOW NOTED								
R-0.1 R-2	14" Ø RELIEF SEWER NO. 1 SEWAGE PUMPING STATION	I	NOV. 16/62		NO FLOW NOTED								
R-0.1 R-1	6" Ø RELIEF SEWER NO. 1 SEWAGE PUMPING STATION	I	NOV. 16/62		NO FLOW NOTED								
R-0.1 R	6" Ø RELIEF SEWER NO. 1 SEWAGE PUMPING STATION- FORCEMAIN	I	NOV. 16/62		NO FLOW NOTED								
R-0.1 W-4	12" Ø STORM SEWER WATER ST.	I	NOV. 16/62		FLOW INSUFFICIENT FOR SAMPLING								
R-0.1 W-3	12" Ø STORM SEWER WATER ST.	I	NOV. 16/62		NO FLOW NOTED								
R-0.1 W-2	8" Ø STORM SEWER WATER ST.	I	NOV. 16/62		NO FLOW NOTED								

ALL ANALYSES EXCEPT PH REPORTED IN PPM  
UNLESS OTHERWISE INDICATED

TABLE 4 - (CONT)

SAMPLING POINT NO.	LOCATION	FIG.	DATE EXAMINED	COLIFORMS PER 100 ML		5-DAY B.O.D.	SOLIDS TOTAL SUSP. DISS.	TURBID- ITY	PHENOLS (PPB)	ETHER SOLUBLES	PH	CHROME	COPPER	IRON
				I.N.	M.F.									
R-0.1 W-1	12" Ø STORM SEWER WATER ST.	1	MAR. 8/60 NOV. 19/62		1,470	9	456 28 428							
							FLOW INSUFFICIENT FOR SAMPLING							
R-0.1 W	15" Ø STORM SEWER WATER ST.	1	NOV. 19/62				FLOWING BUT INACCESSIBLE							
R-0.1	RAMBO CREEK AT LAKESHORE RD.	1	MAR. 8/60 SEPT. 19/60 OCT. 18/60 NOV. 21/61 AUG. 20/62 NOV. 19/62		2,600 25,000 5,700 13,100 7,400 5,700	23 6.0 14 4.7 1.8 7.6	522 18 504 222 2 220 334 - - 462 - - 220 - - 440 - -	- - 3 3.1 2.1 2.6	2 6 - 0 5 -					

TABLE 5 - OUTFALL TABULATION AND ANALYTICAL RESULTS - ROSELAND CREEK

SAMPLING POINT NO.	LOCATION	FIG.	DATE EXAMINED	COLIFORMS PER 100 ML I.N. M.F.	5-DAY B.O.D.	SOLIDS TOTAL SUSP. DISS.	TURBID- ITY	PHENOLS (PPB)	ETHER SOLUBLES	PH	CHROME	COPPER	IRON
RO-3.0	ROSELAND CREEK BELOW 68" x 106" TILE	2B	NOV. 20/62			FLOWING BUT NOT SAMPLED							
RO-2.7	ROSELAND CREEK AT NORTH SERVICE RD.	2B	NOV. 20/62	-	2.8	410	-	4	0				
RO-2.6 D	DITCH RECEIVING WASTE FROM THE FULLER BRUSH CO. LTD.	2B	NOV. 20/62	6,400	9.8	216	4	212	-	18			
RO-2.6	ROSELAND CREEK AT	2B	NOV. 20/62	61,000	8.8	400	-	10	12				
RO-2.5 D	18" Ø CULVERT HARVESTER RD. DITCH	2B	NOV. 20/62		NO FLOW	NOTED							
RO-2.5 P	4" Ø DRAIN EAST OF HARVESTER RD.	2B	NOV. 20/62		NO FLOW	NOTED							
RO-2.4 P	4" Ø DRAIN EAST OF HARVESTER RD.	2B	NOV. 20/62										
RO-2.3 W	36" Ø STORM SEWER - INTERNATIONAL HARVESTER CO.	2A	NOV. 20/62										
RO-1.8 W	33" Ø STORM SEWER GUELPH LINE	2A	MAR. 9/60 NOV. 16/62	284,000	8	340	14	326	5				
RO-1.7 W	18" Ø STORM SEWER PERRY DR.	2A	NOV. 16/62		NO FLOW	NOTED							
RO-1.5 W-1	12" Ø STORM SEWER WOODWARD AVE.	2A	NOV. 16/62										
RO-1.5 W	STORM SEWER WOODWARD AVE.	2A	NOV. 16/62										
ROB-3.2 W	15" Ø STORM SEWER HOMELWOOD DR.	2B	NOV. 16/62										

EVIDENCE OF DOMESTIC WASTE POSSIBLY FROM PREMISES ON SOUTH  
SIDE OF HARVESTER ROAD

NO FLOW NOTED

FLOW INSUFFICIENT FOR SAMPLING

OUTLET FILLED WITH EARTH

NO FLOW NOTED

ALL ANALYSES EXCEPT PH REPORTED IN PPM  
UNLESS OTHERWISE INDICATED

TABLE 5 - (CON'T)

SAMPLING POINT NO.	LOCATION	FIG.	DATE EXAMINED	COLIFORMS PER 100 ML I.N.	5-DAY B.O.D. M.F.	SOLIDS TOTAL SUSP. DISS.	TURBID- ITY	PHENOLS (PPB)	ETHER SOLUBLES	PH	CHROME	COPPER	IRON
R0B-1.5 W	12" Ø STORM SEWER WOODWARD AVE.	2A	NOV. 16/62		NO FLOW NOTED								
R0-1.2 P	4" Ø DRAIN GUELPH LINE	2A	NOV. 20/62		DOMESTIC WASTES EVIDENT								
R0-1.2 W-2	21" Ø STORM SEWER GUELPH LINE	2A	MAR. 9/60 NOV. 20/62	0	1.2 FLOW INSUFFICIENT FOR SAMPLING	760 10 750		2					
R0-1.2 W-1	21" Ø STORM SEWER GUELPH LINE	2A	NOV. 20/62	48,000	4.4	956 28 928							
R0-1.2 R	6" Ø RELIEF SEWER NO. 7 SEWAGE PUMPING STATION	2A	NOV. 20/62		NO FLOW NOTED								
R0-1.2 W	24" Ø STORM SEWER BRIARWOOD CRES.	2A	MAR. 9/60 NOV. 20/62	700	1.4 FLOW INSUFFICIENT FOR SAMPLING	826 14 812		2					
R0-0.7	ROSELAND CREEK AT NEW ST.	2A	NOV. 19/62	4,300	1.9	638 - 6.5							
R0-0.7 W-2	18" Ø STORM SEWER NEW ST.	2A	NOV. 16/62		FLOW INSUFFICIENT FOR SAMPLING								
R0-0.7 W-1	21" Ø STORM SEWER NEW ST.	2A	MAR. 9/60 NOV. 16/62	14,400	2.6 FLOW INSUFFICIENT FOR SAMPLING	548 14 534		3					
R0-0.7 W	27" Ø STORM SEWER DYNES RD.	2A	MAR. 9/60 NOV. 20/62	112,000 138,000	5.2 4.2	624 8 616 756 22 734		0					
R0A-1.1 W	18" Ø STORM SEWER CUMBERLAND AVE.	2A	NOV. 20/62		NO FLOW NOTED								
R0A-0.7	WATERCOURSE AT NEW STREET	2A	NOV. 20/62	86,000	10.0	772 - 16							



TABLE 5 - (CONT)

SAMPLING POINT NO.	LOCATION	FIG.	DATE EXAMINED	COLIFORMS PER 100 ML		5-DAY B.O.D.	SOLIDS		TURBID- ITY	PHENOLS (PPB)	ETHER SOLUBLES	PH	CHROME	COPPER	IRON
				I.N.	M.F.		TOTAL	SUSP. DISS.							
R0-0.4 W-1	18" Ø STORM SEWER LESLIE ST.	2	MAR. 9/60 NOV. 19/62	270		3	698	20 678		4					
						NO FLOW	NOTED								
R0-0.4 W	15" Ø STORM SEWER LESLIE ST.	2	MAR. 9/60 NOV. 19/62	117,000 1,700		330 1.3	766 746	158 608 3 743	-						
R0-0.2 W	12" Ø STORM SEWER ROBERT ST.	2	MAR. 9/60 NOV. 19/62	94,000 600,000		30 3.0	578 546	34 544 - -	1.4	12					
R0-0.1 W	15" Ø STORM SEWER MAYFAIR PLACE	2	MAR. 9/60 NOV. 19/62	134,000 22,200		5.8 2.1	576 676	12 564 - -	1.1	3					
R0-0.0 W-3	12" Ø SEWER BURLINGTON WATER WORKS	2	NOV. 16/62			NO FLOW	NOTED								
R0-0.0 R	24" Ø RELIEF SEWER NO. 10 SEWAGE PUMPING STATION	2	NOV. 16/62			NO FLOW	NOTED								
R0-0.0 W-2	18" Ø STORM SEWER BURLINGTON WATER WORKS	2	MAR. 9/60 NOV. 19/62	< 2 0		1.7 1.6	176 212	8 168 4 208		0					
R0-0.0 W-4	12" Ø STORM SEWER LAKESHORE RD.	2	NOV. 16/62			NO FLOW	NOTED								
R0-0.0 W-5	18" Ø STORM SEWER LAKESHORE RD.	2	MAR. 9/60 NOV. 19/62	97,000 930,000		10 24	398 556	18 380 51 505		15					
R0-0.0 W-1	42" Ø STORM SEWER LAKESHORE RD.	2	NOV. 19/62	370		2.8	276	83 193							
R0-0.0 W	24" Ø STORM SEWER LAKESHORE RD.	2	NOV. 19/62	390,000		40	802	15 787							

ALL ANALYSES EXCEPT PH REPORTED IN PPM  
UNLESS OTHERWISE INDICATED

TABLE 5 - (CONT)

SAMPLING POINT NO.	LOCATION	FIG.	DATE EXAMINED	COLIFORMS PER 100 ML I.N.	M.F.	5-DAY B.O.D.	SOLIDS TOTAL SUSP. DISS.	TURBID- ITY	PHENOLS (PPB)	ETHER SOLUBLES	PH	CHROME	COPPER	IRON
R0-0.0	ROSELAND CREEK AT LAKESHORE RD.	2	MAR. 8/60	180,000		8	698	38	660	-	-	-	-	-
			SEPT. 19/60	670,000		11	514	44	470	-	-	-	-	-
			OCT. 18/60	18,000		10	552	-	-	1	-	-	-	-
			NOV. 21/61	137,000		4.1	804	-	-	3.5	3	-	-	-
			AUG. 20/62	22,900		2.2	774	-	-	3.6	10	-	-	-
			NOV. 19/62	7,400		4.0	564	117	447	-	-	-	-	-

ALL ANALYSES EXCEPT PH REPORTED IN PPM  
UNLESS OTHERWISE INDICATED

TABLE 6 - OUTFALL/TABULATION AND ANALYTICAL RESULTS - TUCK CREEK

SAMPLING POINT NO.	LOCATION	FIG.	DATE EXAMINED	COLIFORMS PER 100 ML		5-DAY B.O.D.	SOLIDS TOTAL SUSP. DISS.	TURBID- ITY	PHENOLS (PPB)	ETHER SOLUBLES	PH	CHROME	COPPER	IRON
				I.N.	M.F.									
T-0.3 W	15" Ø STORM SEWER LAKEVIEW AVE.	3	NOV. 15/62			OUTLET FILLED WITH EARTH								
T-0.2 W	33" Ø STORM SEWER	3	NOV. 15/62			FLOWING BUT NOT SAMPLED								
T-0.1 W-2	24" Ø STORM SEWER LAKESHORE RD.	3	NOV. 15/62			FLOWING BUT NOT SAMPLED								
T-0.1 W-1	STORM SEWER LAKESHORE RD.	3	NOV. 15/62			FLOW INSUFFICIENT FOR SAMPLING								
T-0.1 W	STORM SEWER LAKESHORE RD.	3	NOV. 15/62			NO FLOW NOTED								
T-0.1	TUCK CREEK AT LAKESHORE RD.	3	SEPT. 19/60 OCT. 18/60 NOV. 21/61 AUG. 20/62 NOV. 15/62	350 28,000 12,000 11,000	7.4 2.7 1.8 2.0	NO FLOW NOTED 570 552 734 712	- - - -	1 2.8 45. 8.0	- 6 6 -					

ALL ANALYSES EXCEPT PH REPORTED IN PPM  
UNLESS OTHERWISE INDICATED

TABLE 7 - OUTFALL TABULATION AND ANALYTICAL RESULTS - SHOREACRES CREEK

SAMPLING POINT NO.	LOCATION	FIG.	DATE EXAMINED	COLIFORMS PER 100 ML		5-DAY B.O.D.	SOLIDS		TURBID- ITY	PHENOLS (PPB)		ETHER SOLUBLES		PH	CHROME	COPPER	IRON
				I.N.	M.F.		TOTAL	SUSP.									
SB-3.0 T	4" Ø OUTFALL SEWER CANADIAN CANNERS LTD.	3B	NOV. 28/62	22,900	11	288	22	266		0				7.8			
S-0.9 R	4" Ø RELIEF SEWER NELSON HIGH SCHOOL SEWAGE PUMPING STATION	3A	NOV. 15/62	NO FLOW NOTED													
S-0.9 W	15" Ø STORM SEWER NELSON HIGH SCHOOL	3A	NOV. 15/62	FLOW INSUFFICIENT FOR SAMPLING													
S-0.4 W	21" Ø STORM SEWER GOODRAM DR.	3	NOV. 15/62	3,500	1.4	640	2	638									
S-0.2 W-1	21" Ø STORM SEWER GOODRAM DR.	3	NOV. 15/62	NO FLOW NOTED													
S-0.2 W	8" Ø STORM SEWER LAKESHORE RD.	3	NOV. 15/62	NO FLOW NOTED													
SA-0.7 W	18" Ø STORM SEWER MCINTOSH PL.	3A	NOV. 15/62	FLOWING BUT NOT SAMPLED													
SA-0.2 W	8" Ø STORM SEWER LAKESHORE RD.	3	NOV. 15/62	NO FLOW NOTED													
S-0.2	SHOREACRES CREEK AT LAKESHORE RD.	3	MAR. 8/60 SEPT. 19/60 OCT. 18/60 NOV. 22/61 AUG. 20/62 NOV. 15/62	720	1.4	474	24	450		0							
				NO FLOW NOTED													
				19,000	7.8	624	-	-	1.0	-							
				34,000	2.6	716	-	-	9.0	6							
				143,000	3.2	690	-	-	31.0	4							
				27,000	2.2	494	-	-	7.5	-							



ALL ANALYSES EXCEPT PH REPORTED IN PPM  
UNLESS OTHERWISE INDICATED

TABLE 8 - OUTFALL TABULATION AND ANALYTICAL RESULTS - STREAM "C"

SAMPLING POINT NO.	LOCATION	FIG.	DATE EXAMINED	COLIFORMS PER 100 ML I.N. M.F.	5-DAY B.O.D.	SOLIDS TOTAL SUSP. DISS.	TURBID- ITY	PHENOLS (PPB)	ETHER SOLUBLES	PH	CHROME	COPPER	IRON
C-0.2 W	STORM SEWER LAKESHORE RD.	3	NOV. 15/62	NO FLOW NOTED									
C-0.2	STREAM "C" AT LAKESHORE RD	3	MAR. 8/60	24,000	5.2	652	62	590					
			SEPT. 19/60		FLOW INSUFFICIENT FOR SAMPLING								
			OCT. 18/60	34,000	3.2	746	-	-	3				
			NOV. 22/61	13,200	4.5	648	-	-	4.5				0
			AUG. 20/62	22,500	3.6	818	-	-	17				2
			NOV. 15/62	34,000	2.8	602	-	-	8				

ALL ANALYSES EXCEPT PH REPORTED IN PPM  
UNLESS OTHERWISE INDICATED

TABLE 9 - OUTFALL TABULATION AND ANALYTICAL RESULTS - APPLEBY CREEK

SAMPLING POINT NO.	LOCATION	FIG.	DATE EXAMINED	COLIFORMS PER 100 ML I.N. M.F.	5-DAY B.O.D.	SOLIDS TOTAL SUSP. DISS.	TURBIDITY	PHENOLS (PPB)	ETHER SOLUBLES	PH	CHROME	COPPER	IRON
A-1.0 W	15" Ø STORM SEWER NEW STREET	4A	NOV. 15/62		NO FLOW NOTED								
A-0.6 W-1	27" Ø STORM SEWER APPLEBY LINE	4A	NOV. 15/62		NO FLOW NOTED								
A-0.6 W	STORM SEWER SPRUCE AVE.	4A	NOV. 15/62		NO FLOW NOTED								
A-0.3 D	DITCH FROM APPLEBY	4	NOV. 15/62		NO FLOW NOTED								
A-0.3 W-1	STORM SEWER APPLEBY LINE	4	NOV. 15/62		NO FLOW NOTED								
A-0.3 W	STORM SEWER LINWOOD DR.	4	NOV. 15/62		NO FLOW NOTED								
A-0.1 R	RELIEF SEWER NO. 6 SEWAGE PUMPING STATION	4	NOV. 15/62		NOT LOCATED								
A-0.1 W-1	STORM SEWER LAKESHORE RD.	4	NOV. 15/62		NOT LOCATED								
A-0.1 W	STORM SEWER LAKESHORE RD.	4	NOV. 15/62		INACCESSIBLE - ROCK COVER								
A-0.1	APPLEBY CREEK AT LAKESHORE RD.	4	SEPT. 19/60 OCT. 18/60 NOV. 22/61 AUG. 20/62 NOV. 15/62	1,700 600	2.3 1.8	- 456	- 11.0	- 0					

ALL ANALYSES EXCEPT PH REPORTED IN PPM  
UNLESS OTHERWISE INDICATED

TABLE 10 - OUTFALL TABULATION AND ANALYTICAL RESULTS - SHELDON CREEK

SAMPLING POINT NO.	LOCATION	FIG.	DATE EXAMINED	COLIFORMS PER 100 ML		5-DAY B.O.D.	SOLIDS TOTAL SUSP. DISS.	TURBID- ITY	PHENOLS (PPB)	ETHER SOLUBLES	PH	CHROME	COPPER	IRON
				I.N.	M.F.									
SH-1.2 W	15" Ø STORM SEWER EUSTON RD.	4	NOV. 15/62			NO FLOW NOTED								
SH-1.1 W	24" Ø STORM SEWER OAKVILLE-BURLINGTON TOWN LINE	4	NOV. 15/62			NO FLOW NOTED								
SH-1.1	SHELDON CREEK BELOW OUTLET AT OAKVILLE BURLINGTON TOWN LINE	4	NOV. 15/62	1,300	2.4	410	-	17						

ALL ANALYSES EXCEPT PH REPORTED IN PPM  
UNLESS OTHERWISE INDICATED

TABLE 11 - OUTFALL TABULATION AND ANALYTICAL RESULTS - INDIAN CREEK

SAMPLING POINT NO.	LOCATION	FIG.	DATE EXAMINED	COLIFORMS PER 100 ML			5-DAY B.O.D.	TOTAL SUSP. DISS.	TURBID- ITY	PHENOLS (PPB)	ETHER SOLUBLES	PH	CHROME	COPPER	IRON
				L.N.	M.F.										
I-1.9	INDIAN CREEK ABOVE DITCH	IB	MAR. 18/60	< 15,000	3.2	572	24	548		3					
I-1.9 D-1	DITCH NORTH SIDE C.N.R. TRACKS	IB	MAR. 18/60	60	2.4	498	6	492		14					
I-1.9 D	28" Ø CULVERT FROM DITCH SOUTH SIDE C.N.R. TRACKS	IB	MAR. 18/60	130	4.2	766	8	758		4					
I-1.6 W-9	12" Ø STORM SEWER PLAINS RD. E.	IA	NOV. 21/62	NO FLOW NOTED											
I-1.6 W-8	12" Ø STORM SEWER PLAINS RD. E.	IA	NOV. 21/62	NO FLOW NOTED											
I-1.6 W-7	6" Ø STORM SEWER PLAINS RD. E.	IA	MAR. 18/60 NOV. 21/62	32 2.2 x 10 <sup>6</sup>	1.5 1.5	578 622	8 -	570 -	1.0	0					
I-1.6 W-5	6" Ø STORM SEWER PLAINS RD. E.	IA	MAR. 18/60	15	2.3	1168	6	1162		0					
I-1.6 W-5	6" Ø STORM SEWER PLAINS RD. E.	IA	MAR. 18/60 NOV. 21/62	> 15,000 8.3 x 10 <sup>6</sup>	20 5.8	674 670	24 -	650 -		4 2.1					
I-1.6 W-4	12" Ø STORM SEWER PLAINS RD. E.	IA	MAR. 18/60	2,000	15	2166	866	1300		12					
I-1.6 W-3	12" Ø STORM SEWER PLAINS RD. E.	IA	MAR. 18/60	1,000	37	5120	508	4612		4					
I-1.6 W-2	18" Ø STORM SEWER PLAINS RD. E.	IA	MAR. 18/60 NOV. 21/62	< 15,000 18,000	38 2.2	2460 1010	554 -	1906 -	6.0	17					
I-1.6 W-1	12" Ø STORM SEWER PLAINS RD. E.	IA	NOV. 21/62	NO FLOW NOTED											



TABLE 11 - (CONT)

SAMPLING POINT NO.	LOCATION	FIG.	DATE EXAMINED	COLIFORMS PER 100 ML		5-DAY B.O.D.	TOTAL SUSP. DISS.	TURBID- ITY	PHENOLS (PPB)	ETHER SOLUBLES	PH	CHROME	COPPER	IRON
				I.N.	M.F.									
I-1.6 W	12" Ø STORM SEWER PLAINS RD. E.	1A	NOV. 21/62			NO FLOW NOTED								
I-1.6	INDIAN CREEK AT PLAINS RD. E.	1A	MAR. 18/60		37,000	29	784 98 686	-	6					
IB-1.6 W-6	STORM SEWER PLAINS RD. E.		NOV. 22/62			INACCESSIBLE								
IB-1.6 W-5	STORM SEWER PLAINS RD. E.		NOV. 22/62			INACCESSIBLE								
IB-1.6 W-4	STORM SEWER PLAINS RD. E.		NOV. 22/62			INACCESSIBLE								
IB-1.6 W-3	STORM SEWER PLAINS RD. E.		NOV. 22/62			INACCESSIBLE								
IB-1.6 W-2	12" Ø STORM SEWER PLAINS RD. E.		MAR. 18/60 NOV. 22/62		< 15,000	8	3974 428 3546		14					
IB-1.6 W-1	10" Ø STORM SEWER PLAINS RD. E.		NOV. 22/62			NO FLOW NOTED								
IB-1.6 W	10" Ø STORM SEWER PLAINS RD. E.		NOV. 22/62			NO FLOW NOTED								
IB-1.6	TRIBUTARY "B" OF INDIAN CREEK AT PLAINS RD. E.		MAR. 18/60 NOV. 22/62		42,000 25,000	17 2.2	1542 176 1366 740 - 6.5							
I-1.2 W-4	STORM SEWER MARLEY RD.	1A	NOV. 21/62			INACCESSIBLE AND PARTIALLY SUBMERGED								
I-1.2 W-3	STORM SEWER MARLEY RD.	1A	NOV. 21/62			INACCESSIBLE AND PARTIALLY SUBMERGED								
I-1.2 W-2	STORM SEWER MARLEY RD.	1A	NOV. 21/62			INACCESSIBLE AND PARTIALLY SUBMERGED								

ALL ANALYSES EXCEPT PH REPORTED IN PPM  
UNLESS OTHERWISE INDICATED

TABLE - 11 - (Cont.)

SAMPLING POINT NO.	LOCATION	FIG.	DATE EXAMINED	COLIFORMS PER 100 ML I.N. M.F.	5-DAY B.O.D.	SOLIDS TOTAL SUSP. DISS.	TURBID- ITY	PHENOLS (PPB)	ETHER SOLUBLES	PH	CHROME	COPPER	IRON
I-1.2 W-1	18" Ø STORM SEWER MARLEY RD.	1A	NOV. 21/62		NO FLOW NOTED	PARTIALLY SUBMERGED							
I-1.2 W	12" Ø STORM SEWER MARLEY RD.	1A	NOV. 21/62		NO FLOW NOTED	PARTIALLY SUBMERGED							
I-1.1 W-1	27" Ø STORM SEWER FRANCIS RD.	1A	NOV. 21/62		NO FLOW NOTED								
I-1.1 W	10" Ø STORM SEWER CEDAR AVE.	1A	NOV. 21/62		NO FLOW NOTED								
I-1.0 W	18" Ø STORM SEWER WAYNE PL.	1A	NOV. 21/62		NO FLOW NOTED								
I-0.9 W	15" Ø STORM SEWER EARL CR.	1A	NOV. 21/62		NO FLOW NOTED								
IA-1.6 W	18" Ø STORM SEWER PLAINS RD. E. AND MAPLE AVE.	1A	NOV. 21/62		NO FLOW NOTED								
I-0.4 W-1	15" Ø STORM SEWER ONEIDA PL.	1	NOV. 21/62	87,000	11	438	-	-	5.5				
I-0.4 W	15" Ø STORM SEWER QUEEN ELIZABETH WAY	1	NOV. 21/62		NO FLOW NOTED								
I-0.3 W-2	24" Ø STORM SEWER QUEEN ELIZABETH WAY	1	NOV. 21/62		NO FLOW NOTED								
I-0.3 W-1	24" Ø STORM SEWER QUEEN ELIZABETH WAY	1	NOV. 21/62		NO FLOW NOTED								
I-0.3 W	24" Ø STORM SEWER ABOVE HWY. NO. 2	1	NOV. 21/62	50	12	814	55	759					
I-0.2 W	30" Ø STORM SEWER HWY. NO. 2	1	NOV. 21/62	57,000	4.8	596	-	-	4				
I-0.0 D	DITCH - INDIAN ROAD	1	NOV. 21/62		NO FLOW NOTED								

ALL ANALYSES EXCEPT PH REPORTED IN PPM  
UNLESS OTHERWISE INDICATED

TABLE 11 - (CONT)

SAMPLING POINT NO.	LOCATION	FIG.	DATE EXAMINED	COLIFORMS PER 100 ML		5-DAY B.O.D.	SOLIDS TOTAL SUSP. DISS.	TURBID- ITY	PHENOLS (PPB)	ETHER SOLUBLES	PH	CHROME	COPPER	IRON
1-0.0	INDIAN CREEK AT HAMILTON HARBOUR	1	NOV. 21/62	I.N.	M.F.	110,000	47	774	96	678				

ALL ANALYSES EXCEPT PH REPORTED IN PPM  
UNLESS OTHERWISE INDICATED

TABLE 12 - OUTFALL TABULATION AND ANALYTICAL RESULTS - STREAM "N"

SAMPLING POINT NO.	LOCATION	FIG.	DATE EXAMINED	COLIFORMS PER 100 ML I.N. M.F.	5-DAY B.O.D.	SOLIDS TOTAL SUSP. DISS.	TURBID- ITY	PHENOLS (PPB)	ETHER SOLUBLES	PH	CHROME	COPPER	IRON
NA-0.5 W	24" Ø STORM SEWER LONG DR.	A	NOV. 22/62		FLOWING BUT NOT SAMPLED								
NA-0.4 D	12" Ø OUTLET FROM DITCH SHARALIN CT.	A	NOV. 22/62		NO FLOW NOTED								
NA-0.3	24" Ø CULVERT FOR STREAM SOUTH DEBORAH CR.	A	NOV. 22/62	144,000	11	598 - -	7						
N-0.4 W	12" Ø STORM SEWER GREENWOOD DR.	A	NOV. 22/62		FLOWING BUT NOT SAMPLED								
N-0.3 W-1	6" Ø STORM SEWER HWY. NO. 2	A	NOV. 22/62		NO FLOW NOTED								
N-0.3 W	6" Ø STORM SEWER HWY. NO. 2	A	NOV. 22/62		NO FLOW NOTED								
N-0.3	30" Ø CULVERT FOR STREAM "N" WEST HWY. NO. 2, SOUTH DEBORAH CR.	A	NOV. 22/62	3,200,000	5.9	624 - -	3.6						
N-0.0	STREAM "N" AT HAMILTON HARBOUR	A	NOV. 22/62	104,000	7.6	630 - -	12.0						



ALL ANALYSES EXCEPT PH REPORTED IN PPM  
UNLESS OTHERWISE INDICATED

TABLE 13 - OUTFALL TABULATION AND ANALYTICAL RESULTS - STREAM "W"

SAMPLING POINT NO.	LOCATION	FIG.	DATE EXAMINED	COLIFORMS PER 100 ML		5-DAY B.O.D.	SOLIDS		TURBID- ITY	PHENOLS (PPB)	ETHER SOLUBLES	PH	CHROME	COPPER	IRON
				I.N.	M.F.		TOTAL	SUSP. DISS.							
M-0.6 W-1	24" Ø STORM SEWER ANN AVE.	A	NOV. 22/62	900		0.5	224	5	219						
M-0.6 W	15" Ø STORM SEWER ANN AVE.	A	NOV. 22/62	8,400		1.6	574	3	571						
M-0.1	STREAM "W" AT NORTH SHORE BLVD.	A	NOV. 22.62	31,000		1.8	462	-	3.1						

ALL ANALYSES EXCEPT PH REPORTED IN PPM  
UNLESS OTHERWISE INDICATED

TABLE 14 - OUTFALL TABULATION AND ANALYTICAL RESULTS - FALCON CREEK

SAMPLING POINT NO.	LOCATION	FIG.	DATE EXAMINED	COLIFORMS PER 100 ML I.N.	M.F.	5-DAY B.O.D.	SOLIDS TOTAL SUSP. DISS.	TURBID- ITY	PHENOLS (PPB)	ETHER SOLUBLES	PH	CHROME	COPPER	IRON
F-1.2 D	24" $\phi$ CULVERT FROM DITCH - ENFIELD RD.	B	NOV. 22/62			NO FLOW NOTED								
F-1.1 D-3	21" $\phi$ CULVERT FROM DITCH - DORSET AVE.	B	NOV. 22/62			NO FLOW NOTED								
F-1.1 D-2	21" $\phi$ CULVERT FROM DITCH- DORSET AVE.	B	NOV. 22/62			NO FLOW NOTED								
F-1.1 D-1	21" $\phi$ CULVERT FROM DITCH- DORSET AVE.	B	NOV. 22/62			NO FLOW NOTED								
F-1.1 D	21" $\phi$ CULVERT FROM DITCH- DORSET AVE.	B	NOV. 22/62			NO FLOW NOTED								
F-1.0 W	12" $\phi$ STORM SEWER CONRAD CT.	B	NOV. 22/62			NO FLOW NOTED								
F-0.9 W	12" $\phi$ STORM SEWER PLAINS RD. E.	B	NOV. 22/62			NO FLOW NOTED								
F-0.8 W	STORM SEWER FALCON BLVD.	B	NOV. 22/62			NO FLOW NOTED								
F-0.7	FALCON CREEK AT TOWNSEND AVE.	B	NOV. 22/62	19,000		4.6	558	-	-	29				
F-0.7 W	18" $\phi$ STORM SEWER TOWNSEND AVE.	B	NOV. 22/62			NO FLOW NOTED								
F-0.1	FALCON CREEK AT NORTH SHORE BLVD.	A	NOV. 22/62	1,090		2.0	556	-	-	8.5				

ALL ANALYSES EXCEPT PH REPORTED IN PPM  
UNLESS OTHERWISE INDICATED

TABLE 15 - OUTFALL TABULATION AND ANALYTICAL RESULTS - TEAL CREEK

SAMPLING POINT NO.	LOCATION	FIG.	DATE EXAMINED	COLIFORMS PER 100 ML M.F.	5-DAY B.O.D.	SOLIDS TOTAL SUSP. DISS.	TURBID- ITY	PHENOLS (PPB)	ETHER SOLUBLES	PH	CHROME	COPPER	IRON
TE-0.5 W	21" Ø STORM SEWER TOWNSEND AVE. BETWEEN TEAL AND PARTRIDGE DRIVES	B	NOV. 22/62	1,780	2.5	672 8 664							
TE-0.0	STREAM "K" AT HAMILTON HARBOUR	A	NOV. 22/62	34,000	2.8	668 - - 8.0							

ALL ANALYSES EXCEPT PH REPORTED IN PPM  
UNLESS OTHERWISE INDICATED

TABLE 16 - OUTFALL TABULATION AND ANALYTICAL RESULTS - STREAM "J"

SAMPLING POINT NO.	LOCATION	FIG.	DATE EXAMINED	COLIFORMS PER 100 ML M.F.	5-DAY B.O.D.	SOLIDS TOTAL SUSP. DISS.	TURBID- ITY	PHENOLS (PPB)	ETHER SOLUBLES	PH	CHROME	COPPER	IRON
J-0.4 W	12" Ø STORM SEWER TOWNSEND AVE. AT ASCOT PL.	B	NOV. 22/62		NO FLOW NOTED								
J-0.0	STREAM "J" AT HAMILTON HARBOUR	A	NOV. 22/62	67,000	3.6	682	11.5						



TABLE 17 - OUTFALL TABULATION AND ANALYTICAL RESULTS - ALDERSHOT CREEK

SAMPLING POINT NO.	LOCATION	FIG.	DATE EXAMINED	COLIFORMS PER 100 ML		5-DAY B.O.D.	TOTAL SUSP. DISS.		TURBID- ITY	PHENOLS (PPB)	ETHER SOLUBLES	PH	CHROME	COPPER	IRON
				I.N.	M.F.										
AL-0.4 W-1	36" Ø OUTLET FOR ALDERSHOT CREEK - GENEVA STREET	C	NOV. 22/62		880,000	32	596	-	23						
AL-0.4 W	36" Ø STORM SEWER GENEVA STREET	C	NOV. 22/62		60,000	13	780	223	557						
AL-0.0	ALDERSHOT CREEK AT HAMILTON HARBOUR	C	NOV. 26/62			NOT SAMPLED									

ALL ANALYSES EXCEPT PH REPORTED IN PPM  
UNLESS OTHERWISE INDICATED

TABLE 18 - OUTFALL TABULATION AND ANALYTICAL RESULTS - GRINDSTONE CREEK

SAMPLING POINT NO.	LOCATION	FIG.	DATE EXAMINED	COLIFORMS PER 100 ML		5-DAY B.O.D.	SOLIDS		TURBID- ITY	PHENOLS (PPB)	ETHER SOLUBLES	PH	CHROME	COPPER	IRON
				I.N.	M.F.		TOTAL	SUSP. DISS.							
G-4.5	GRINDSTONE CREEK AT ALDERSHOT WATERDOWN RD.		JULY 21/61 SEPT. 25/62 NOV. 27/62		4,700 17,000 43,000	2.8 7.2 4.7	356 388 398	- - -	2.0 9.0 5.0						
G-2.0	GRINDSTONE CREEK ABOVE JCT. WITH HENDRIE CREEK	D	SEPT. 28/61 SEPT. 25/62 MAY 9/62 SEPT. 21/62 NOV. 27/62		- 28,000 - - 6,200	1.9 2.1 2.6 2.8 4.2	440 404 360 441 412	- - - 19 425 -	1 11 6.5 - 5.0						
GH-2.4	HENDRIE CREEK EAST OF ALDERSHOT WATERDOWN RD. AT C.N.R. TRACKS	B	NOV. 27/62		400	3.2	442	-	5.5						
GH-2.4 I-1	12" Ø SEWER - J. COOKE CONCRETE BLOCKS	B	NOV. 27/62		90,000	29	766	208 558	-						
GH-2.4 I	8" Ø SEWER J. COOKE CONCRETE BLOCKS	B	JULY 21/61 SEPT. 28/61 NOV. 27/62		-	14 15 8.8	55,264 38,792 62,180	54,918 38,510 60,220	346 282 1960						
GHA-2.5 I	DRAIN TRIBUTARY "A" OF HENDRIE CR. GORDON PICKLE CO. LTD.	D	NOV. 27/62			NO FLOW NOTED									
GHB-3.0 T	6" Ø OUTFALL SEWER WOODVIEW PUBLIC SCHOOL SEWAGE TREATMENT PLANT	D	NOV. 27/62		0	14	762	66 696							

ALL ANALYSES EXCEPT PH REPORTED IN PPM  
UNLESS OTHERWISE INDICATED

TABLE 18 - (CON'T)

SAMPLING POINT NO.	LOCATION	FIG.	DATE EXAMINED	COLIFORMS PER 100 ML I.N.	M.F.	5-DAY B.O.D.	SOLIDS TOTAL SUSP. DISS.	TURBID- ITY	PHENOLS (PPB)	ETHER SOLUBLES	PH	CHROME	COPPER	IRON
GH-2.0	HENDRIE CREEK ABOVE JCT. WITH GRINDSTONE CREEK	D	JULY 21/61 SEPT. 28/61 MAY 9/62 SEPT. 21/62 NOV. 27/62	- - - - 1,200	- - - - -	13 45* 10.5* 2.8 4.8	474 419* 341* 370 404	86 78* 48* 49 -	388 341* 293* 321 -	-	-	-	-	-
GH-1.1 W	STORM SEWER PLAINS RD. W.		NOV. 27/62			NO FLOW NOTED								
GB-0.3	TRIBUTARY "B" AT SNAKE RD.		NOV. 27/62	11,500		2.1	862	-	-	-	-	-	-	-
G-0.3	GRINDSTONE CREEK AT HWY. NO. 2		JULY 21/61 NOV. 27/62	37,000 11,000		12 4.0	536 434	136 -	400 -	-	-	-	-	-
G-0.2 W	18" Ø STORM SEWER YORK BLVD. AND GRANDVIEW AVE.		NOV. 27/62			NO FLOW NOTED								

\* AVERAGE FIGURES

ALL ANALYSES EXCEPT PH REPORTED IN PPM  
UNLESS OTHERWISE INDICATED

TABLE 19 - ANALYTICAL RESULTS - BRONTE CREEK

SAMPLING POINT NO.	LOCATION	FIG.	DATE EXAMINED	COLIFORMS PER 100 ML I.N. M.F.	5-DAY B.O.D.	SOLIDS TOTAL SUSP. DISS.	TURBID- ITY	PHENOLS (PPB)	ETHER SOLUBLES	PH	CHROME	COPPER	IRON
BK-16.4	KILBRIDE BRANCH AT CEDAR SPRINGS ROAD		JUNE 22/60 MAY 18/61 JUNE 14/62	390 196 530	1.0 2.6 1.1	256 350 344	4 1 2.6						
B-16.0	BRONTE CREEK AT CEDAR SPRINGS RD.		JUNE 22/60 MAY 18/61 JUNE 14/62	700 191 1,010	1.4 2.5 1.2	258 368 350	3 2 2.8						
B-14.2	BRONTE CREEK AT GUELPH LINE		JUNE 22/60 MAY 18/61 JUNE 14/62	510 89 1,050	2.0 2.7 1.6	292 368 394	3 2 7.5						
B-12.7	BRONTE CREEK AT NO. 5 SIDE RD.		JUNE 22/60 MAY 18/61 JUNE 14/62	220 85 890	1.5 2.4 1.8	258 360 380	3 1 9						
BC-12.5	CRAWFORD BRANCH AT NO. 5 SIDE RD.		JUNE 22/60 MAY 18/61 JUNE 14/62	460 324 99,000	1.2 2.8 3.2	274 344 420	9 1 40						
B-11.4	BRONTE CREEK AT NO. 4 SIDE ROAD		JUNE 22/60 MAY 18/61 JUNE 14/62	144 74 21,000	1.7 4.1 1.7	258 350 368	3 2 13.0						
BR-11.0	RATTLESNAKE CREEK AT APPLEBY LINE		JUNE 22/60 MAY 18/61 JUNE 14/62	78 32 16,000	1.4 2.4 3.8	158 300 418	3 1 45						
B-9.3	BRONTE CREEK AT APPLEBY LINE		JUNE 22/60 MAY 18/61 JUNE 14/62	121 84 21,000	1.9 2.1 3.8	246 364 394	3 2 29						
B-6.6	BRONTE CREEK AT HWY. NO. 5		JUNE 22/60 MAY 18/61 JUNE 14/62	120 62 12,000	1.2 2.9 2.2	250 328 370	5 3 34						



TABLE 20 - OUTFALL TABULATION AND ANALYTICAL RESULTS - LAKE ONTARIO

SAMPLING POINT NO.	LOCATION	FIG.	DATE EXAMINED	COLIFORMS PER 100 ML		5-DAY B.O.D.	SOLIDS	TURBID- ITY	PHENOLS (PPB)	ETHER SOLUBLES	PH	CHROME	COPPER	IRON
				I.N.	M.F.		TOTAL SUSP. DISS.							
LO-46.2 W	21" Ø STORM SEWER WEST OF BRANT INN	I	SEPT. 19/60				FLOW INSUFFICIENT FOR SAMPLING							
			OCT. 18/60		1,500,000	52	376 28 348		6					
			NOV. 21/61		115,000	11	580 - -	2.5	12					
			AUG. 20/62		278,000	10	418 - -	6.5	8					
			NOV. 21/62		12,000	23	600 15 585							
			MAR. 8/60		31,000	24	1654 200 1454							
LO-46.3 W	30" Ø STORM SEWER NELSON AVE.	I	SEPT. 19/60				NO FLOW NOTED							
			OCT. 18/60		1,200	4.8	710 - -	1	4					
			NOV. 21/61		10,300	7.9	818 - -	2.9	2					
			AUG. 20/62				FLOW INSUFFICIENT FOR SAMPLING							
			NOV. 21/62		18,400	20	542 83 459							
			SEPT. 19/60				FLOW INSUFFICIENT FOR SAMPLING							
LO-46.4 W	12" Ø STORM SEWER OPPOSITE HAGER AVE.	I	OCT. 18/60				NO FLOW NOTED							
			NOV. 21/61				NO FLOW NOTED							
			AUG. 20/62		17	1.0	190 - -	1.8	0					
			NOV. 21/62				NO FLOW NOTED							
			SEPT. 19/60		1,000	8.4	880 18 862	-	2					
					1,200	12	620 - -	16	-					
LO-46.5 O	HAGER CREEK AT WATER STREET	I			10,000	2.8	618 - -	12.5	3					
					12,600	1.2	826 - -	1.8	2					
					990	4.0	852 - -	12.0	-					
LO-46.6 W	18" Ø STORM SEWER LOCUST ST.	I	SEPT. 19/60				NOT LOCATED							
			OCT. 18/60		1,900,000	1280	888 160 728		1200					
			NOV. 21/61				FLOW INSUFFICIENT FOR SAMPLING							
			AUG. 20/62		177,000	7.0	216 - -	18.	8					
			NOV. 20/62				OUTLET COVERED WITH STONES							

ALL ANALYSES EXCEPT PH REPORTED IN PPM  
UNLESS OTHERWISE INDICATED

TABLE 20 - (CONT)

SAMPLING POINT NO.	LOCATION	FIG.	DATE EXAMINED	COLIFORMS PER 100 ML		5-DAY B.O.D. <sub>5</sub>	SOLIDS TOTAL SUSP. DISS.	TURBID- ITY	PHENOLS (PPB)	ETHER SOLUBLES	PH	CHROME	COPPER	IRON
				I.N.	M.F.									
L0-46.7 W	15" Ø STORM SEWER BRANT STREET	1	SEPT. 19/60 OCT. 18/60 NOV. 21/61 AUG. 20/62 NOV. 20/62			NOT LOCATED NOT LOCATED NOT LOCATED NOT LOCATED NOT LOCATED								
L0-46.8 W	12" Ø STORM SEWER ELIZABETH ST.	1	SEPT. 19/60 OCT. 18/60 NOV. 21/61 AUG. 20/62 NOV. 20/62			NOT LOCATED NOT LOCATED 620 38. 73	- - - - 287	7.1 20.	25 8000.					
L0-46.8 W-1	STORM SEWER	1	NOV. 20/62			FLOW INSUFFICIENT FOR SAMPLING								
L0-47.1 D	RAMBO CREEK AT HWY. #2 (WATER ST.)	1	MAR. 8/60 SEPT. 19/60 OCT. 18/60 NOV. 21/61 AUG. 20/62 NOV. 19/62			2,600 25,000 5,700 13,100 7,400 5,700	18 2 - - - -	504 220 3 3.1 2.1 2.6	2 6 - 0 5. -					
L0-47.2 D	DRAINAGE DITCH BETWEEN TORRANCE ST. & SMITH AVE.	1	SEPT. 19/60 OCT. 18/60 NOV. 21/61 AUG. 20/62 NOV. 19/62			FLOW INSUFFICIENT FOR SAMPLING NO FLOW NOTED FLOW INSUFFICIENT FOR SAMPLING NO FLOW NOTED NO FLOW NOTED								
L0-47.4 D	DRAINAGE DITCH EAST OF SENECA ST.	2	SEPT. 19/60 OCT. 18/60 NOV. 21/61 AUG. 20/62 NOV. 20/62			FLOW INSUFFICIENT FOR SAMPLING 4.0 FLOW INSUFFICIENT FOR SAMPLING NO FLOW NOTED NO FLOW NOTED	- 226 - -	3 -	2					
L0-47.5 R	30" Ø RELIEF SEWER FROM DRURY LANE SEWAGE TREATMENT PLANT OUTFALL	2	SEPT. 19/60 OCT. 18/60 NOV. 20/61 AUG. 20/62 NOV. 20/62			NO FLOW NOTED NO FLOW NOTED NO FLOW NOTED NO FLOW NOTED NO FLOW NOTED								

TABLE 20 - (CON'T)

SAMPLING POINT NO.	LOCATION	FIG.	DATE EXAMINED	COLIFORMS PER 100 ML			5-DAY B.O.D.	SOLIDS		TURBID- ITY	PHENOLS (PPB)	ETHER SOLUBLES	PH	CHROME	COPPER	IRON
				I.N.	M.F.			TOTAL	SUSP.							
LO-47.5 T	30" Ø OUTFALL SEWER DRURY LANE SEWAGE TREATMENT PLANT	2	SEPT. 19/60		7,000,000		104	546	54	492						
			OCT. 18/60		840,000		46	958	422	536						10
			NOV. 30/61		12,000		84	596	70	526						0
			AUG. 20/62		16,000		5.2	564	36	528						4
			NOV. 20/62		5,900		15	678	21	657						
LO-47.6 W	30" Ø STORM SEWER GREEN STREET	2	SEPT. 19/60					NO FLOW	NOTED							
			OCT. 18/60					NO FLOW	NOTED							
			NOV. 21/61					NO FLOW	NOTED							
			AUG. 20/62					FLOW	INSUFFICIENT FOR SAMPLING							
			NOV. 20/62					NO FLOW	NOTED							
LO-47.7 W-1	14" Ø STORM SEWER MARKET STREET	2	SEPT. 19/60					OUT LET	SUBMERGED, OTHER SUITABLE SAMPLING POINT NOT LOCATED							
			OCT. 18/60													
			NOV. 21/61													
			AUG. 20/62													
			NOV. 20/62													
LO-47.7 W-2	15" Ø STORM SEWER MARKET STREET	2	SEPT. 19/60					NO FLOW	NOTED							
			OCT. 18/60													
			NOV. 21/61													
			AUG. 20/62													
			NOV. 20/62													
LO-47.8 W-1	27" Ø STORM SEWER GUELPH LINE	2	NOV. 20/62		156,000		11	744	65	679						
LO-47.8 W	24" Ø STORM SEWER GUELPH LINE	2	MAR. 8/60		23,300		4.8	666	12	654						2
			SEPT. 19/60		12,000,000		300	710	184	526						20
			OCT. 18/60		210,000		62	528	-	-	4					4
			NOV. 21/61		1,400,000		11.	530	-	-	12					12
			AUG. 20/62		267,000		14.	382	-	-	17					10
			NOV. 20/62		9,100		2.7	510	7	503						

ALL ANALYSES EXCEPT PH REPORTED IN PPM  
UNLESS OTHERWISE INDICATED

TABLE 20 - (CON'T)

SAMPLING POINT NO.	LOCATION	FIG.	DATE EXAMINED	COLIFORMS PER 100 ML		5-DAY B.O.D.	SOLIDS TOTAL SUSP. DISS.	TURBID- ITY	PHENOLS (PPB)	ETHER SOLUBLES	PH	CHROME	COPPER	IRON
				I.N.	M.F.									
L0-48.2 W	12" Ø STORM SEWER POMONA AVE.	2	SEPT. 19/60 OCT. 18/60 NOV. 21/61 AUG. 20/62 NOV. 20/62			"	"	"	"	"	"	"	"	"
L0-48.4 D	ROSELAND CREEK AT LAKESHORE RD.	2	MAR. 8/60 SEPT. 19/60 OCT. 18/60 NOV. 21/61 AUG. 20/62 NOV. 19/62	180,000 670,000 18,000 137,000 22,900 7,400	8 11 10 4.1 2.2 4.0	698 514 552 804 774 564	38 44 - - - 117	660 470 - - - 447	- - 1 3.5 3.6 -	- 0 - 3 10 -				
L0-49.0 D	TUCK CREEK AT LAKESHORE RD.	3	SEPT. 19/60 OCT. 18/60 NOV. 21/61 AUG. 20/62 NOV. 15/62			NO FLOW NOTED								
L0-49.2 W	30" Ø STORM SEWER WALKERS LINE	3	SEPT. 19/60 OCT. 18/60 NOV. 21/61 AUG. 20/62 NOV. 15/62	350 28,000 12,000 11,000	7.4 2.7 1.8 2.0	570 552 734 712	- - - -	- - - -	1 2.8 45. 8.0	- 6 6 -				
L0-49.6 W	12" Ø STORM SEWER INGLEWOOD DR.	3	SEPT. 19/60 OCT. 18/60 NOV. 21/61 AUG. 20/62 NOV. 15/62			FLOW INSUFFICIENT FOR SAMPLING								
						7.2 3.2 NO FLOW NOTED INACCESSIBLE			2 2.6 13					



TABLE 20 - (Cont'd)

SAMPLING POINT NO.	LOCATION	FIG.	DATE EXAMINED	COLIFORMS PER 100 ML		5-DAY B.O.D. <sub>5</sub>	SOLIDS		TURBID- ITY	PHENOLS (PPB)	ETHER SOLUBLES	PH	CHROME	COPPER	IRON
				I.N.	M.F.		TOTAL	SUSP.							
LO-49.8 D	SHOREACRES CREEK AT LAKESHORE RD.	3	MAR. 8/60	720		1.4	474	24	450	0					
			SEPT. 19/60			NO FLOW NOTED									
			OCT. 18/60			7.8	624	-	-	1.0					
			NOV. 22/61			2.6	716	-	-	9.0					
			AUG. 20/62			3.2	690	-	-	31.0					
			NOV. 15/62			2.2	494	-	-	7.5					
LO-50.0 D	STREAM "C" AT LAKESHORE RD.	3	MAR. 8/60	24,000		5.2	652	62	590						
			SEPT. 19/60			FLOW INSUFFICIENT FOR SAMPLING									
			OCT. 18/60	34,000		3.2	746	-	-	3					
			NOV. 22/61	13,200		4.5	648	-	-	4.5					
			AUG. 20/62	22,500		3.6	818	-	-	17					
			NOV. 15/62	34,000		2.8	602	-	-	8					
LO-50.7 D	APPLEBY CREEK AT LAKESHORE RD.	4	SEPT. 19/60			NO FLOW NOTED									
			OCT. 18/60			NO FLOW NOTED									
			NOV. 22/61	1,700		2.3	636	-	-	4.0					
			AUG. 20/62			NO FLOW NOTED									
			NOV. 15/62	600		1.8	456	-	-	11.0					
			NOV. 15/62			FLOW INSUFFICIENT FOR SAMPLING									
LO-51.0 W	42" Ø STORM SEWER LAKESHORE RD.	4	NOV. 15/62			NO FLOW NOTED									
			NOV. 15/62			NO FLOW NOTED									
LO-51.5 D	DITCH FOOT HAMPTON HEATH RD.	4	NOV. 15/62			NO FLOW NOTED									
			NOV. 15/62			NO FLOW NOTED									
LO-51.5 TW-1	18" Ø OUTFALL SEWER ELIZABETH GARDENS S.T.P.	4	SEPT. 19/60	14,000,000		235	610	68	542	18					
			OCT. 18/60	1,800,000		120	646	52	594	-					
			NOV. 22/61	< 10		33	788	-	-	27					
			AUG. 20/62	20		15.	530	3	527	6					
			NOV. 15/62	24,100		350	966	354	612	8.					
			NOV. 15/62			NO FLOW NOTED									

ALL ANALYSES EXCEPT PH REPORTED IN PPM  
UNLESS OTHERWISE INDICATED

ALL ANALYSES EXCEPT PH REPORTED IN PPM  
UNLESS OTHERWISE INDICATED

TABLE 20 - (CONT)

SAMPLING POINT NO.	LOCATION	FIG.	DATE EXAMINED	COLIFORMS PER 100 ML		5-DAY B.O.D.	SOLIDS TOTAL SUSP. DISS.	TURBID- ITY	PHENOLS (PPB)	ETHER SOLUBLES	PH	CHROME	COPPER	IRON
				I.N.	M.F.									
L0-51.5 TW-2	48" Ø SEWAGE TREATMENT PLANT OUTFALL AND STORM SEWER-HAMPTON HEATH RD.	4	SEPT. 19/60 OCT. 18/60 NOV. 22/61 AUG. 20/62 NOV. 15/62			FLOWING TO LAKE VIA OUTLET - L0-51.5 TW-1	FF FF FF FF FF	FF						
L0-51.8 D	18" Ø CULVERT FROM DITCH-LAKESHORE RD.	4	NOV. 15/62			FLOW INSUFFICIENT FOR SAMPLING								
L0-51.8 W	STORM SEWER- LAKESHORE RD.	4	NOV. 15/62			NOT LOCATED								
L0-51.9	24" Ø CULVERT- OAKVILLE- BURLINGTON TOWN LINE DITCH	4	NOV. 15/62			FLOW INSUFFICIENT FOR SAMPLING								

TABLE 21 - OUTFALL TABULATION AND ANALYTICAL RESULTS - HAMILTON HARBOUR

SAMPLING POINT No.	LOCATION	FIG.	DATE EXAMINED	COLIFORMS PER 100 ML I. No. M.F.	5-DAY B.O.D.	SOLIDS TOTAL SUSP. DISS.	TURBID- ITY	PHENOLS (PPB)	ETHER SOLUBLES	PH	CHROME	COPPER	IRON
L0H-1 T	48" Ø OUTFALL SEWER SKYLINE WATER POLLUTION CONTROL PLANT	IAS											
L0H-2 D	INDIAN CREEK AT HAMILTON HARBOUR	I	NOV. 21/62	110,000	47	774 96 678							
L0H-3 D	DITCH AT HWY. NO. 2 EAST OF STILLWATER CR.	I	NOV. 26/62	12,800	8.0	598 6 592							
L0H-4 W	15" Ø STORM SEWER AT KING RD AND NORTH SHORE BLVD.	A	NOV. 26/62	26,000	6.0	964 15 949							
L0H-5 D	DITCH AT SOUTH END OF HWY. NO. 2	A	NOV. 26/62				NO FLOW NOTED						
L0H-6 W	STORM SEWER OPPOSITE NORTHLAND AVE.	A	NOV. 26/62				NOT LOCATED						
L0H-7 D	STREAM "N" AT HAMILTON HARBOUR	A	NOV. 22/62	104,000	7.6	630 - -	12.0						
L0H-8 D	STREAM "W" AT HAMILTON HARBOUR	A	NOV. 22/62	31,000	1.8	462 - -	3.1						
L0H-9 D	FALCON CREEK AT HAMILTON HARBOUR	A	NOV. 22/62	1,090	2.0	556 - -	8.5						
L0H-10 W	STORM SEWER - NORTH SHORE BLVD.	A	NOV. 26/62				NO FLOW NOTED						
L0H-11 D	TEAL CREEK AT HAMILTON HARBOUR	A	NOV. 22/62	34,000	2.8	668 - -	8.0						

PLANT UNDER CONSTRUCTION

ALL ANALYSES EXCEPT PH REPORTED IN PPM  
UNLESS OTHERWISE INDICATED

TABLE 21 - (CONT)

SAMPLING POINT NO.	LOCATION	FIG.	DATE EXAMINED	COLIFORMS PER 100 ML		5-DAY B.O.D	TOTAL SUSP.	DISS.	TURBID- ITY	PHENOLS (PPB)	ETHER SOLUBLES	PH	CHROME	COPPER	IRON
				I.N.	M.F.										
LOH-12 D	STREAM "J" AT HAMILTON HARBOUR	A	NOV. 22/62		67,000	3.6	682	-	11.5						
LOH-13 D	ALDERSHOT CREEK AT HAMILTON HARBOUR	C	NOV. 26/62			NOT SAMPLED									
LOH-14 T	8" Ø OUTFALL SEWER - ALDERSHOT SEWAGE TREATMENT PLANT		NOV. 26/62		0	39	270	20	250						



TABLE 22 - BACTERIOLOGICAL SAMPLES COLLECTED BY HALTON COUNTY HEALTH  
UNIT FROM 1959 - 62 INCLUSIVE

Swimming Area No.	No. of Samples Examined	No. Exceeding OWRC Objective
1	29 (6)	9 (2)
2	25 (6)	9 (3)
3	20 (6)	11 (3)
4	23 (6)	8 (4)
5	24 (6)	10 (3)
6	24 (6)	13 (4)
7	24 (6)	11 (3)
8	20 (6)	5 (2)
9	24 (6)	8 (3)
9 A	16 (6)	4 (3)
10	21 (6)	4 (3)
11	21 (6)	5 (4)
12	16 (6)	9 (5)
13	20 (6)	10 (5)
14	17 (6)	9 (5)
15	22 (6)	3 (3)
16	20 (5)	9 (4)
17	38 (13)	12 (9)
18	22 (6)	8 (4)
19	22 (6)	5 (3)
20	21 (6)	3 (2)
21	16 (6)	5 (3)
22	23 (6)	6 (3)

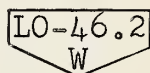
Note: Comparative figures for 1962  
are given in parenthesis

BURLINGTON WATER POLLUTION SURVEY  
TABLE 23 - NOMENCLATURE FOR OUTFALLS

Lake Ontario

The outfalls and drainage inlets to Lake Ontario were designated by the shore line mileage measured clockwise from the International Boundary in the Niagara River along the shore and outside any bays or harbours. A letter signifying the type of outfall follows the Lake Ontario (LO) shore line mileage.

Example -



Hamilton Harbour

Inside harbours, outfalls were designated by numbers prefixed by the initial letter of the harbour (Hamilton - H). Numbering therefore was carried out in a counter-clockwise direction in numerical order.

Example -



Streams

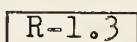
The outfalls and sampling points for the streams were designated by the mileage measured from the mouth of the watercourse. A letter denoting the type of outfall follows the stream mileage.

Example -



Stream sampling points were shown by the letter representing the stream e.i. Rambo Creek (R) followed by the appropriate mileage.

Example -



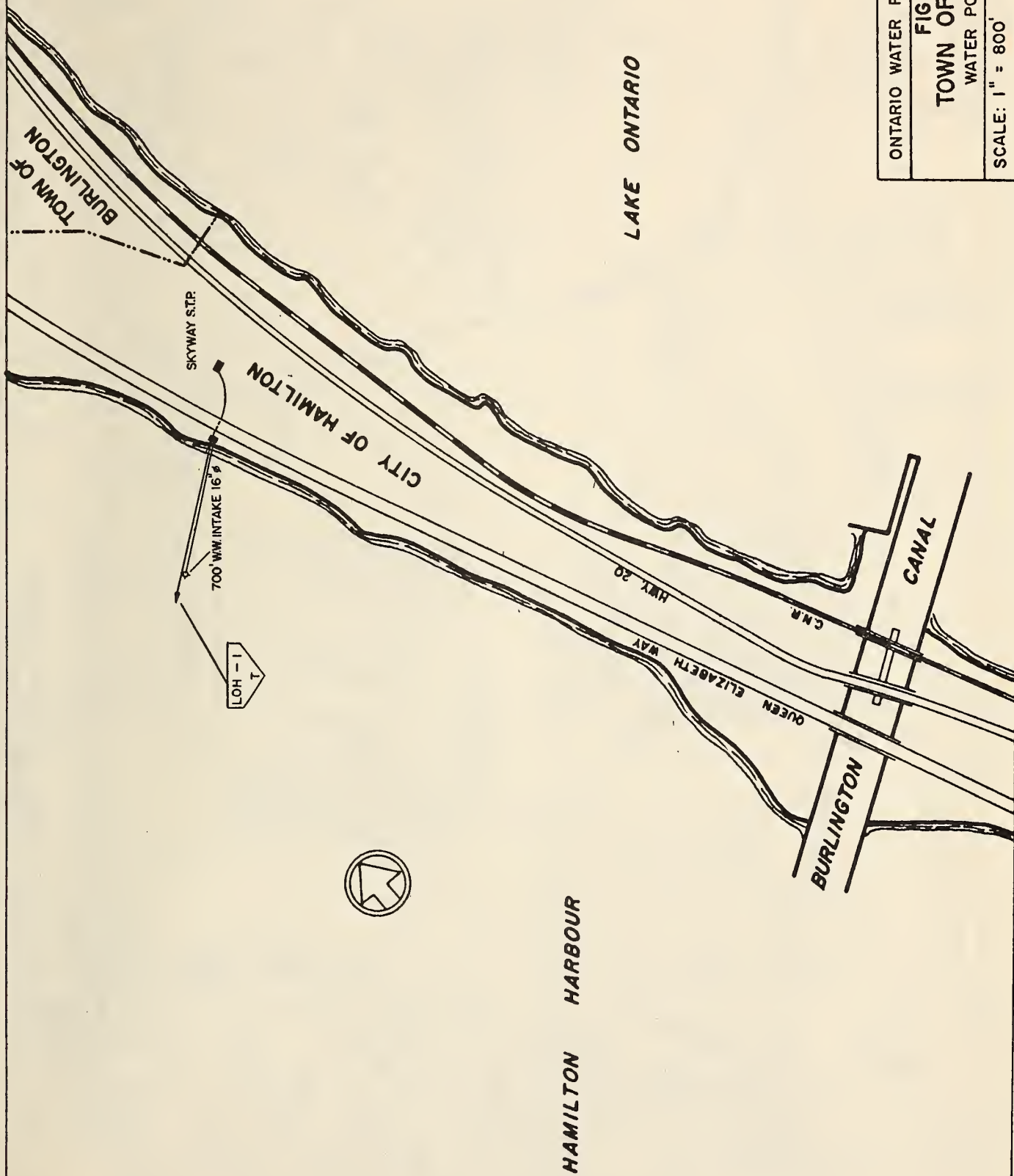
Outfall Symbol Letters

W - Storm sewers.

- T - Sewage treatment plant outfall.
- I - Industrial waste sewer.
- R - Relief sewer from a pumping station or from a sanitary or combined sewer.
- D - Drainage ditch, creek or river.
- P - Private drain.







ONTARIO WATER RESOURCES COMMISSION

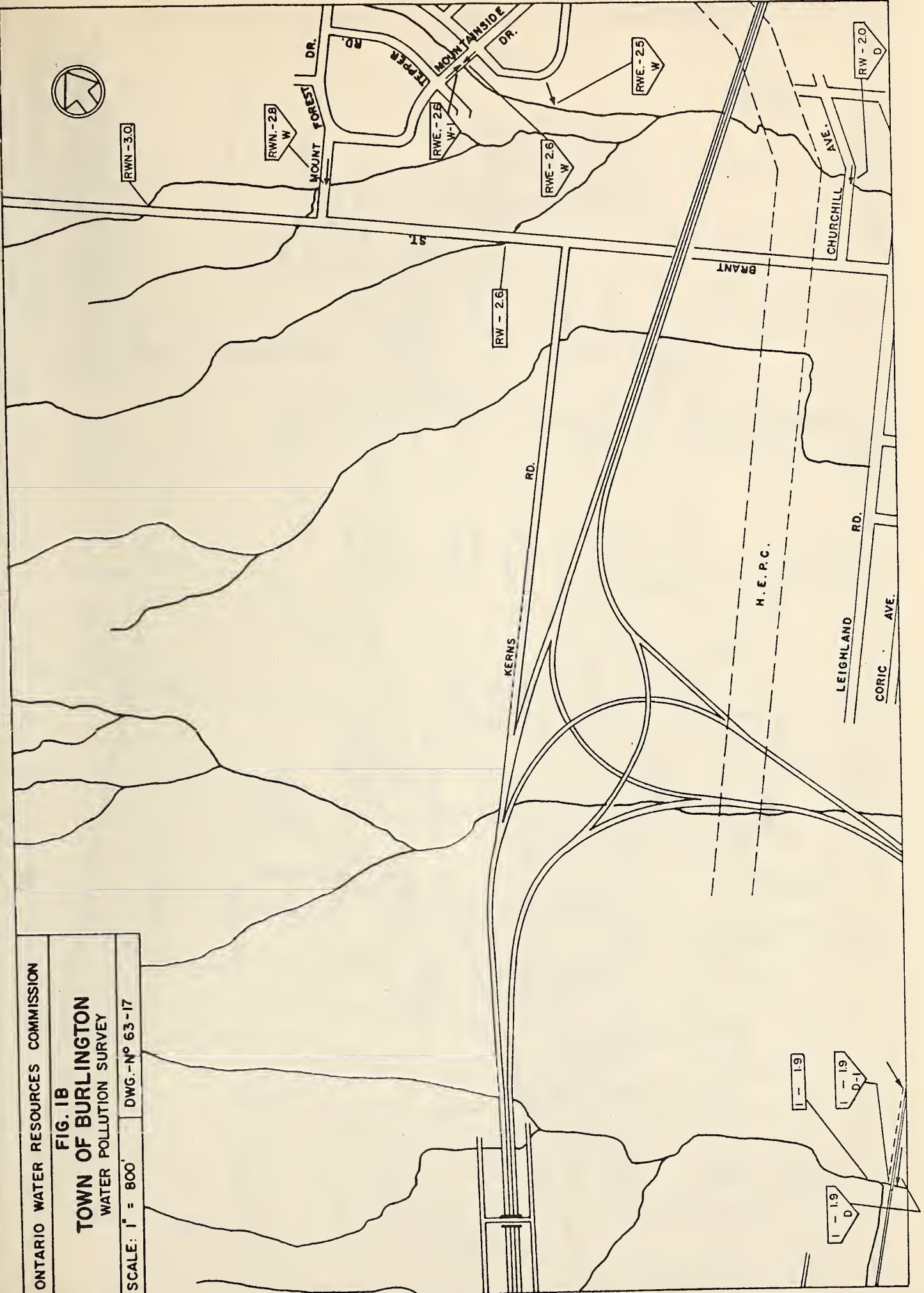
FIG. 1 A South  
TOWN OF BURLINGTON  
WATER POLLUTION SURVEY

SCALE: 1" = 800'  
DWG. No. 63-21

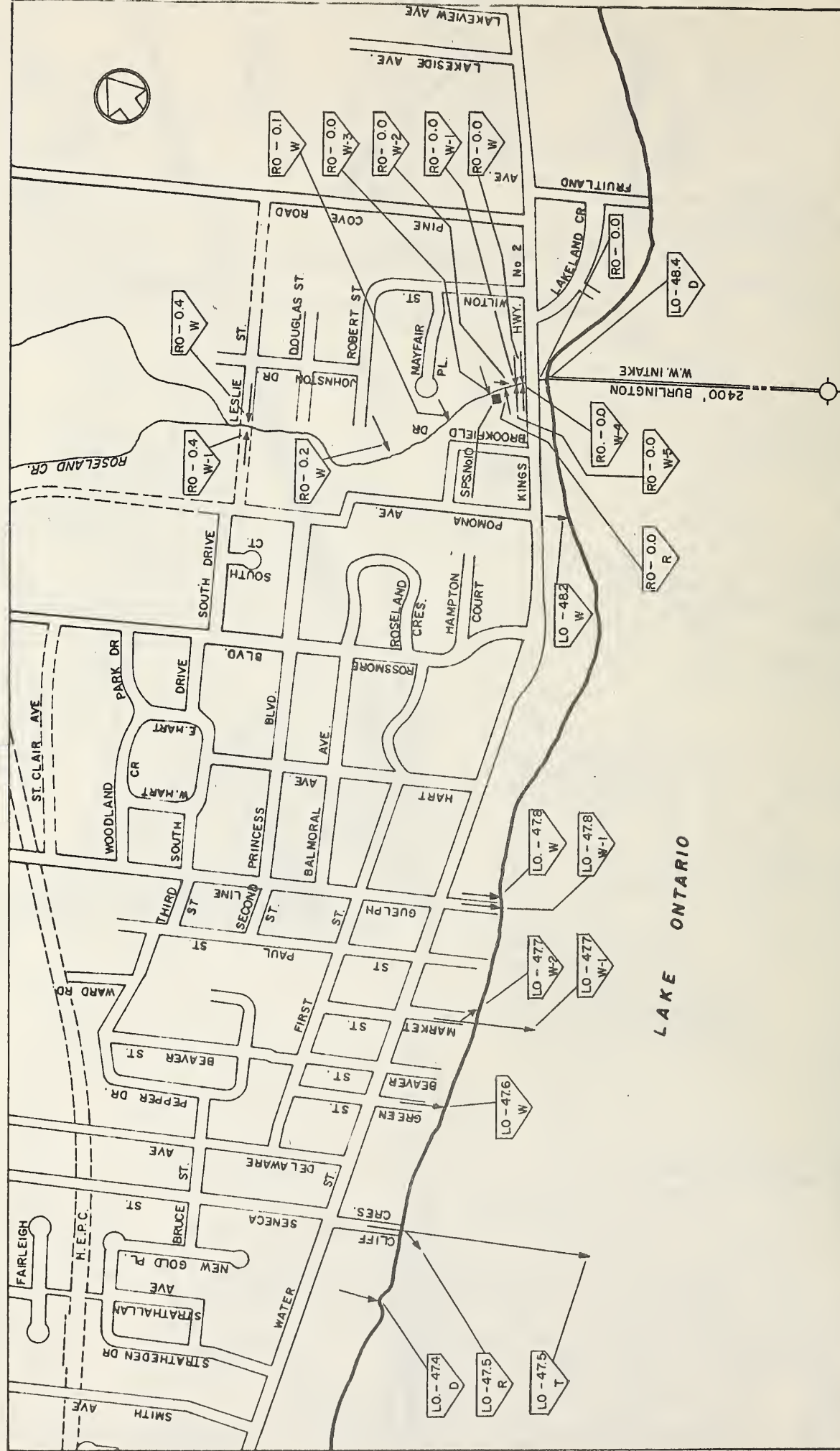


FIG. 1B  
TOWN OF BURLINGTON  
WATER POLLUTION SURVEY

SCALE: 1" = 800' DWG.-NO 63-17







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**FIG. 2**

**TOWN OF BURLINGTON**

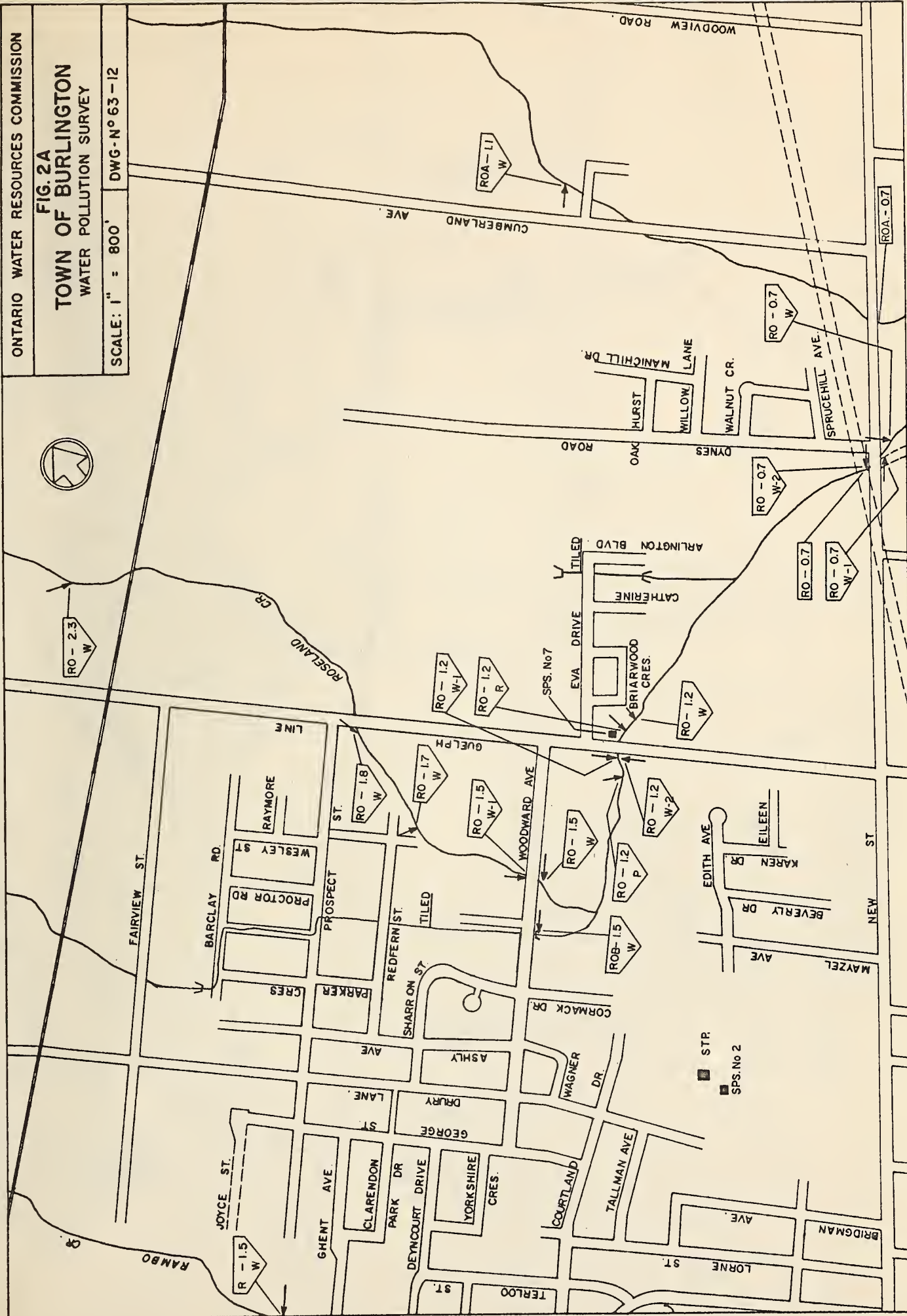
# WATER POLLUTION SURVEY

Scale: 1" = 800'

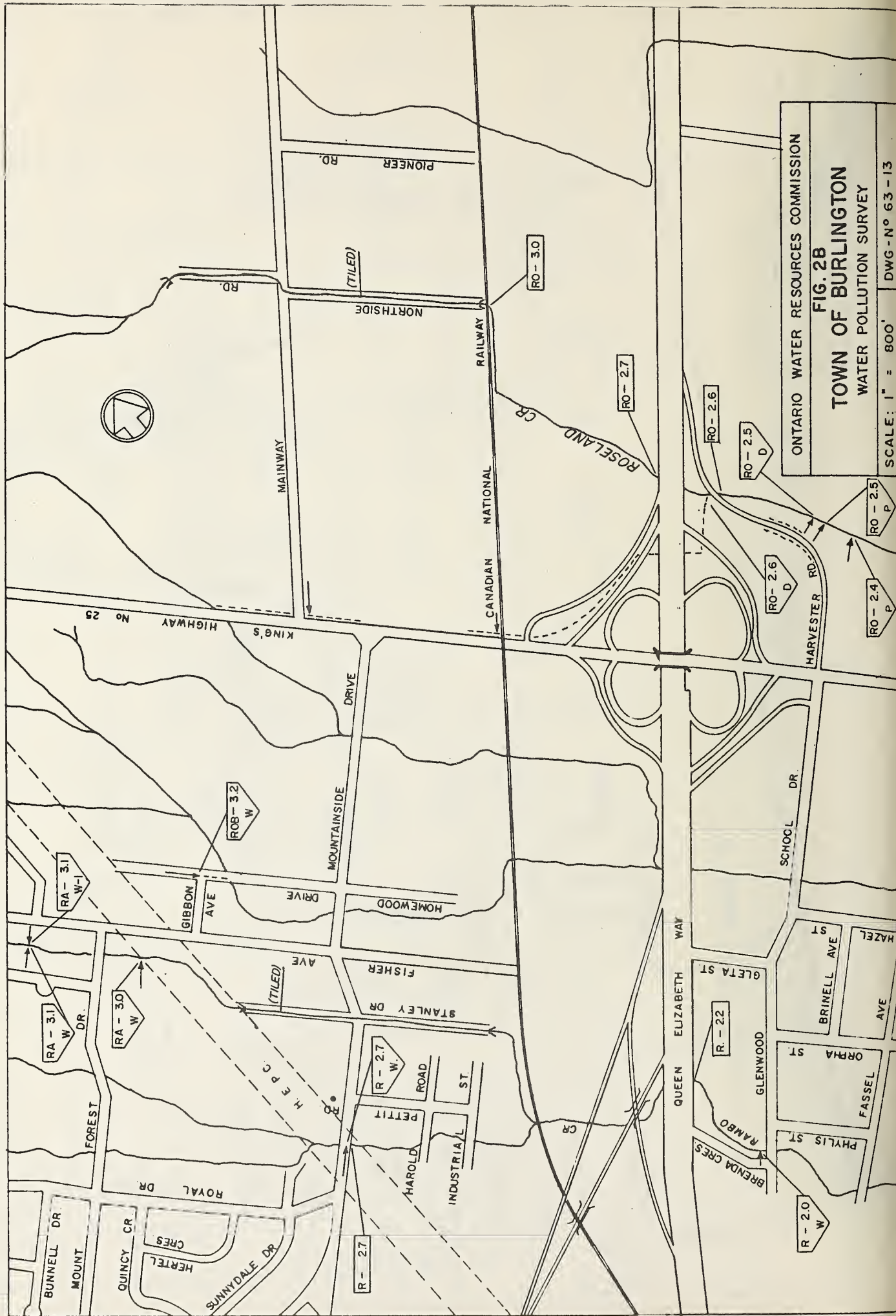
DWG. No. 63-11

FIG. 2A  
TOWN OF BURLINGTON  
WATER POLLUTION SURVEY

SCALE: 1" = 800' DWG-N° 63-12







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**FIG. 2B**  
**TOWN OF BURLINGTON**  
 WATER POLLUTION SURVEY

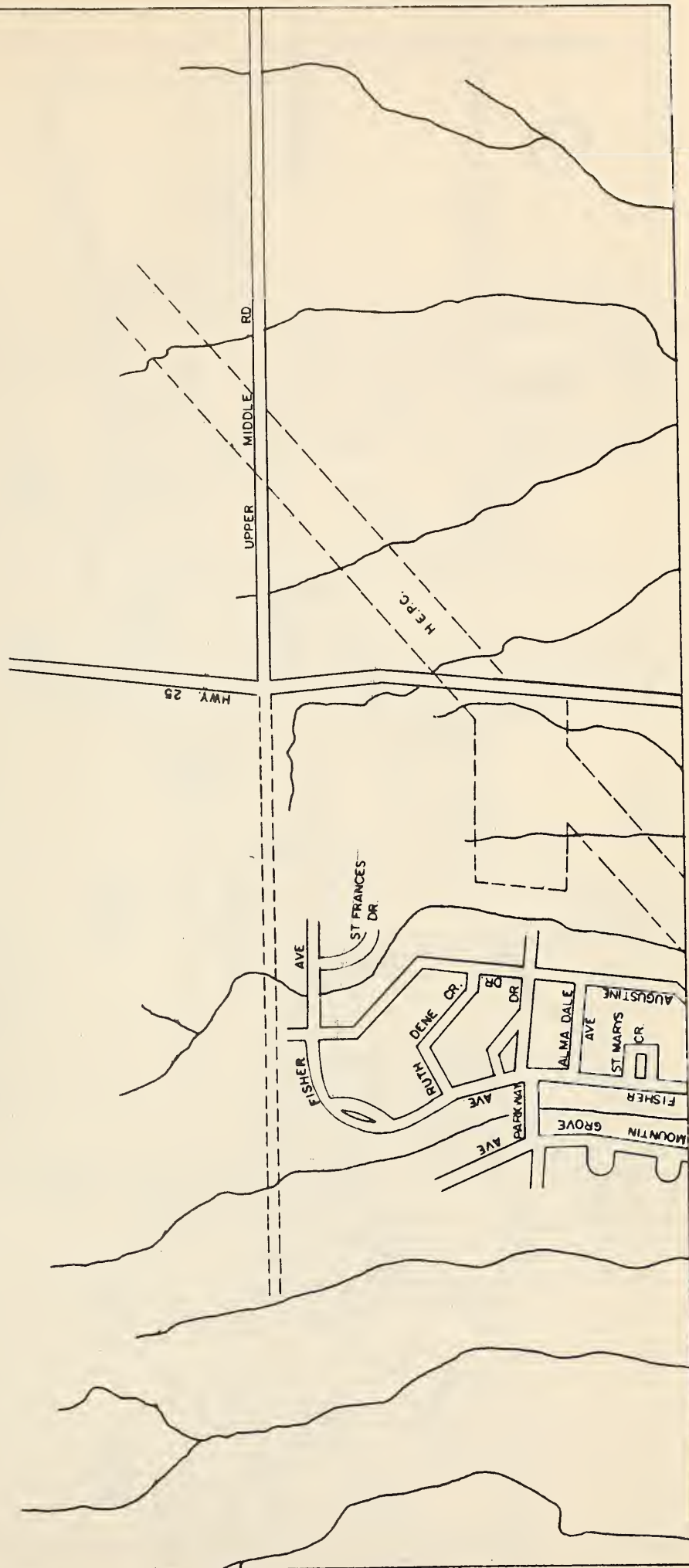
SCALE: 1" = 800' DWG - N° 63 - 13

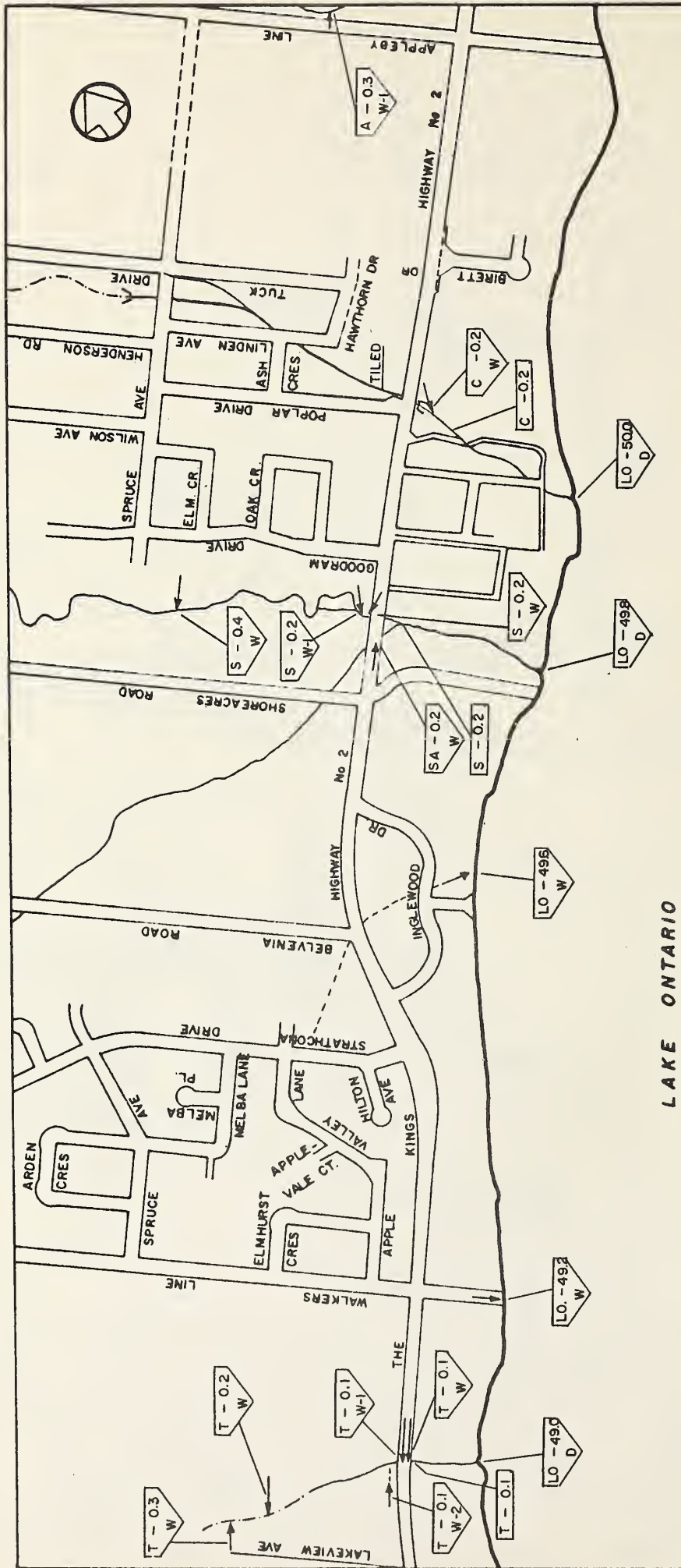
FIG. 2C

# TOWN OF BURLINGTON

## WATER POLLUTION SURVEY

SCALE: 1" = 800'	DWG - N° 63 - 14
------------------	------------------





LAKE ONTARIO

ONTARIO WATER RESOURCES COMMISSION

**FIG. 3**  
**TOWN OF BURLINGTON**  
 WATER POLLUTION SURVEY

Scale: 1" = 800' DWG. No. 63-B



FIG.3A

TOWN OF BURLINGTON  
WATER POLLUTION SURVEY

SCALE: 1" = 800' DWG-N° 63-9

CANADIAN NATIONAL RAILWAYS

H.E.P.C.

BLACKS LANE

ELWOOD RD

ROTHESAY PL

WALKERS LINE

NEW ST

LORRRAINE CRES

WINTOSH PL (TILED)

BELVENIA RD

SHOREACRES RD

WILSON AVE

HENDERSON RD

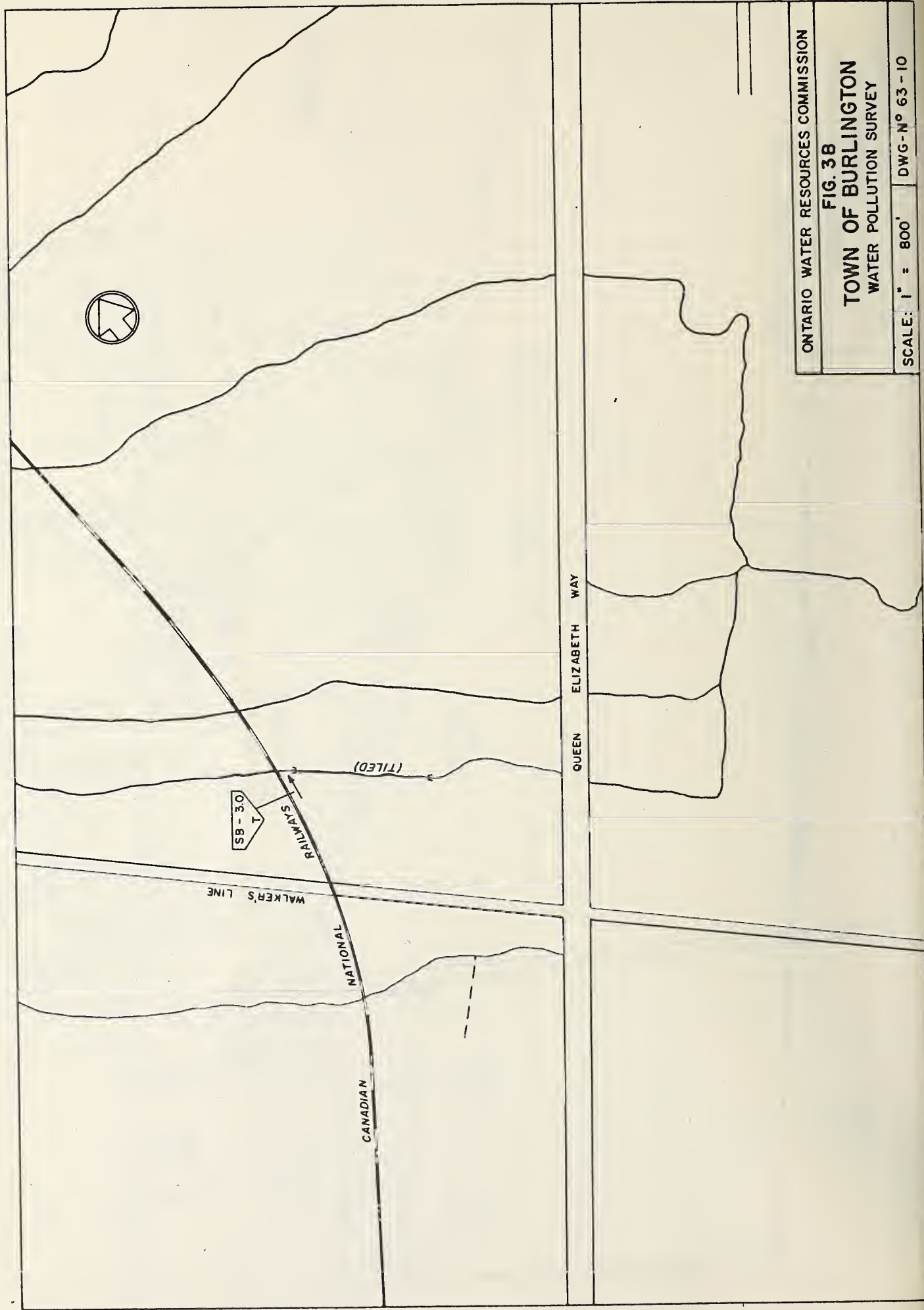
ADRIAN AVE

SA-07 W

S-09 W SPS

S-09 R





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FIG. 3B

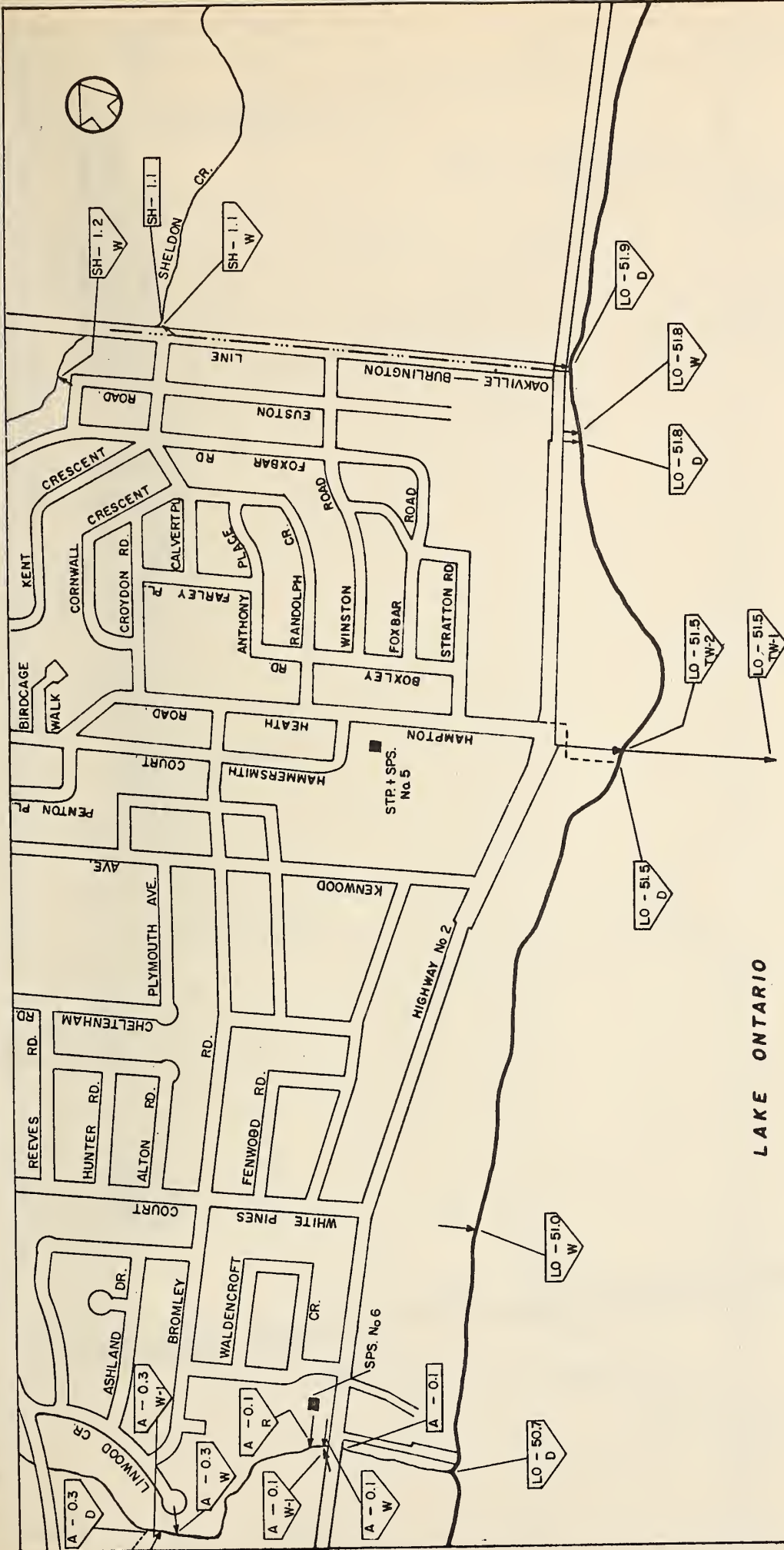
TOWN OF BURLINGTON

WATER POLLUTION SURVEY

SCALE: 1" = 800'

DWG-Nº 63-10





LAKE ONTARIO

ONTARIO WATER RESOURCES COMMISSION

FIG. 4

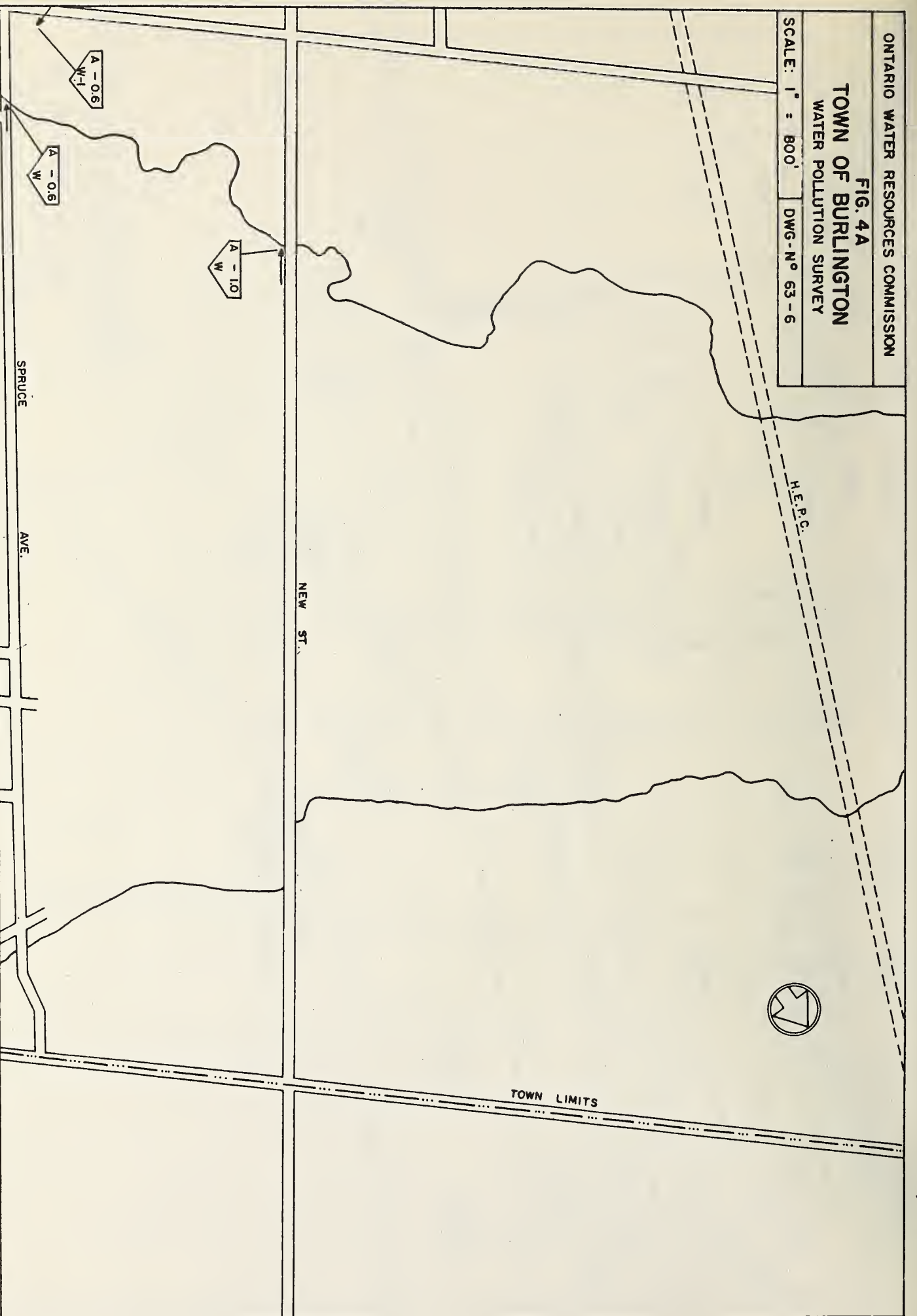
TOWN OF BURLINGTON  
WATER POLLUTION SURVEY

Scale: 1" = 800'

DWG. No. 63 - 5

FIG. 4A  
TOWN OF BURLINGTON  
WATER POLLUTION SURVEY

SCALE: 1" = 800' DWG-N° 63-6



ONTARIO WATER RESOURCES COMMISSION

FIG. 4B

TOWN OF BURLINGTON  
WATER POLLUTION SURVEY

SCALE: 1" = 800'

DWG - N° 63 - 7



APPLEBY LINE

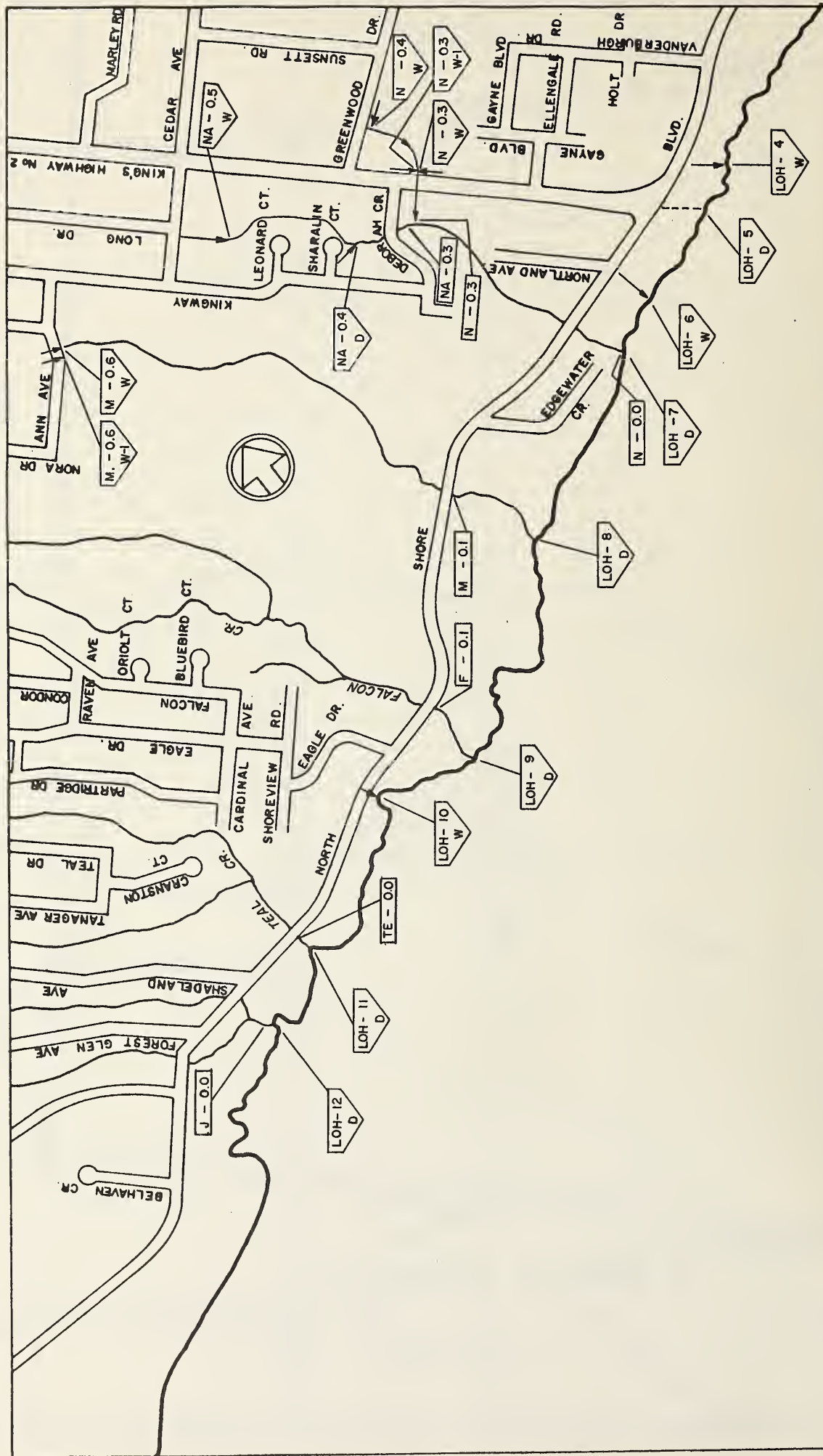
LINE

QUEEN ELIZABETH WAY

TOWN

BURLINGTON - OAKVILLE





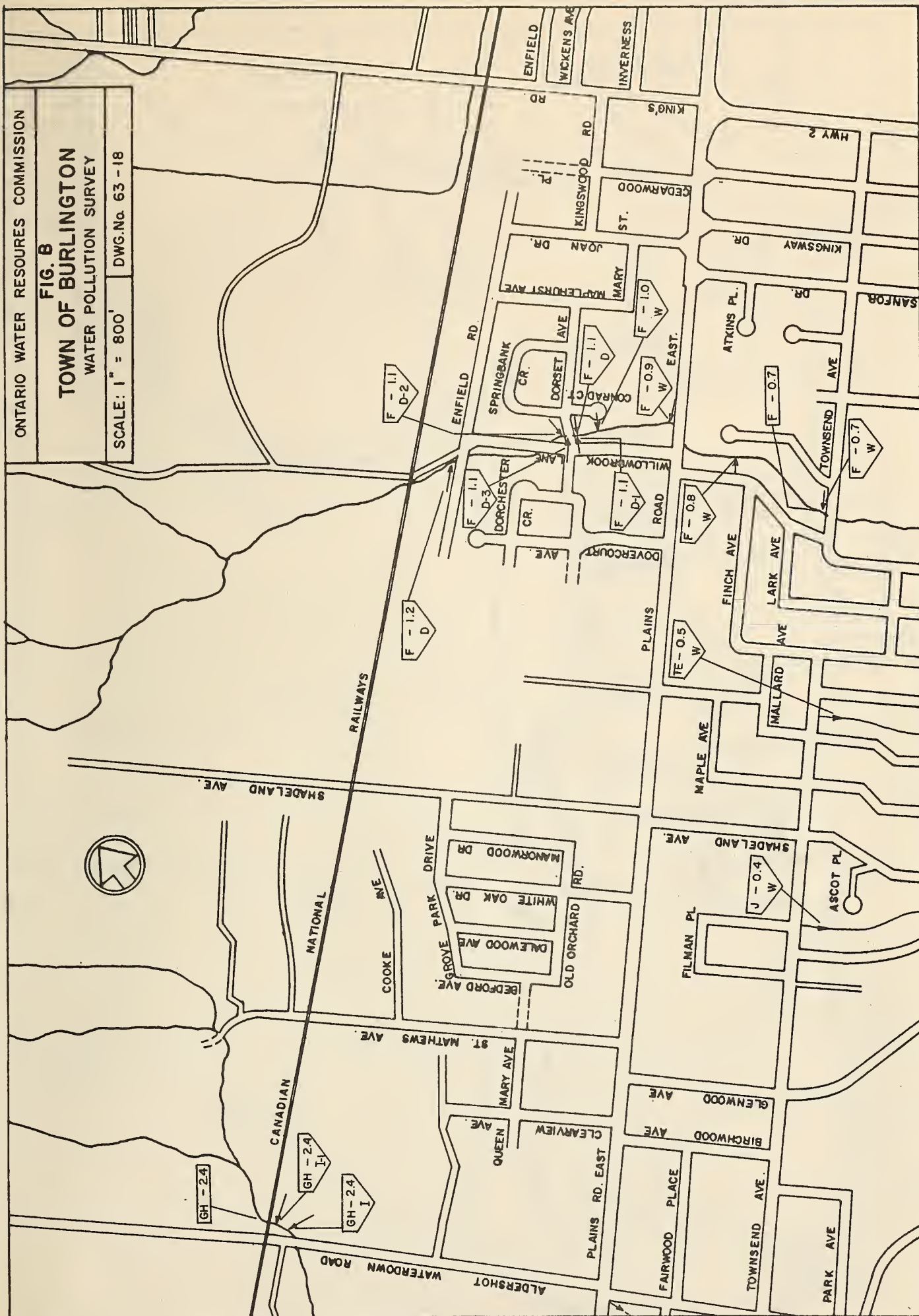
ONTARIO WATER RESOURCES COMMISSION

**FIG. A**  
**TOWN OF BURLINGTON**  
**WATER POLLUTION SURVEY**

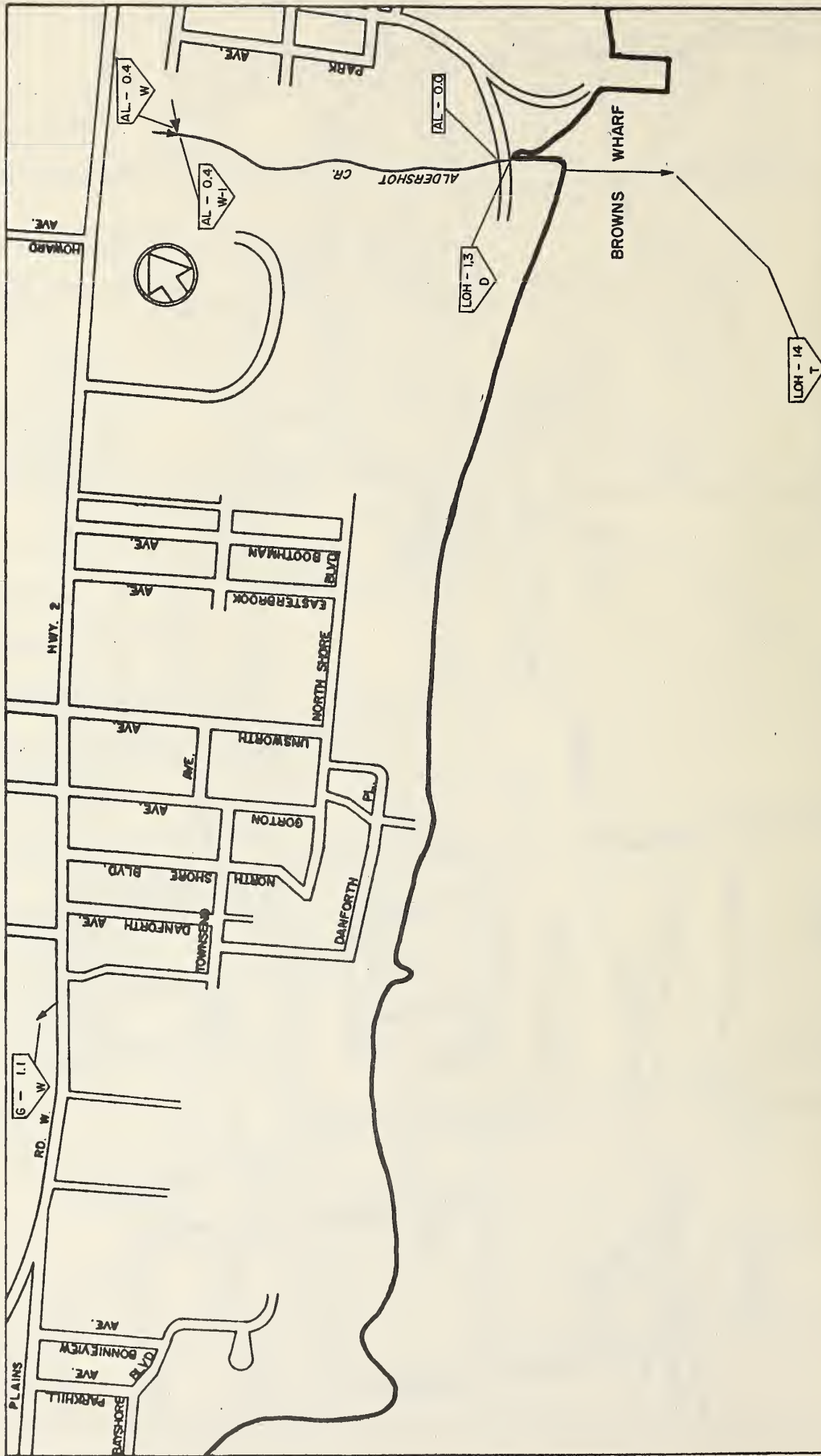
SCALE: 1" = 800'

DWG. No. 63 - 20

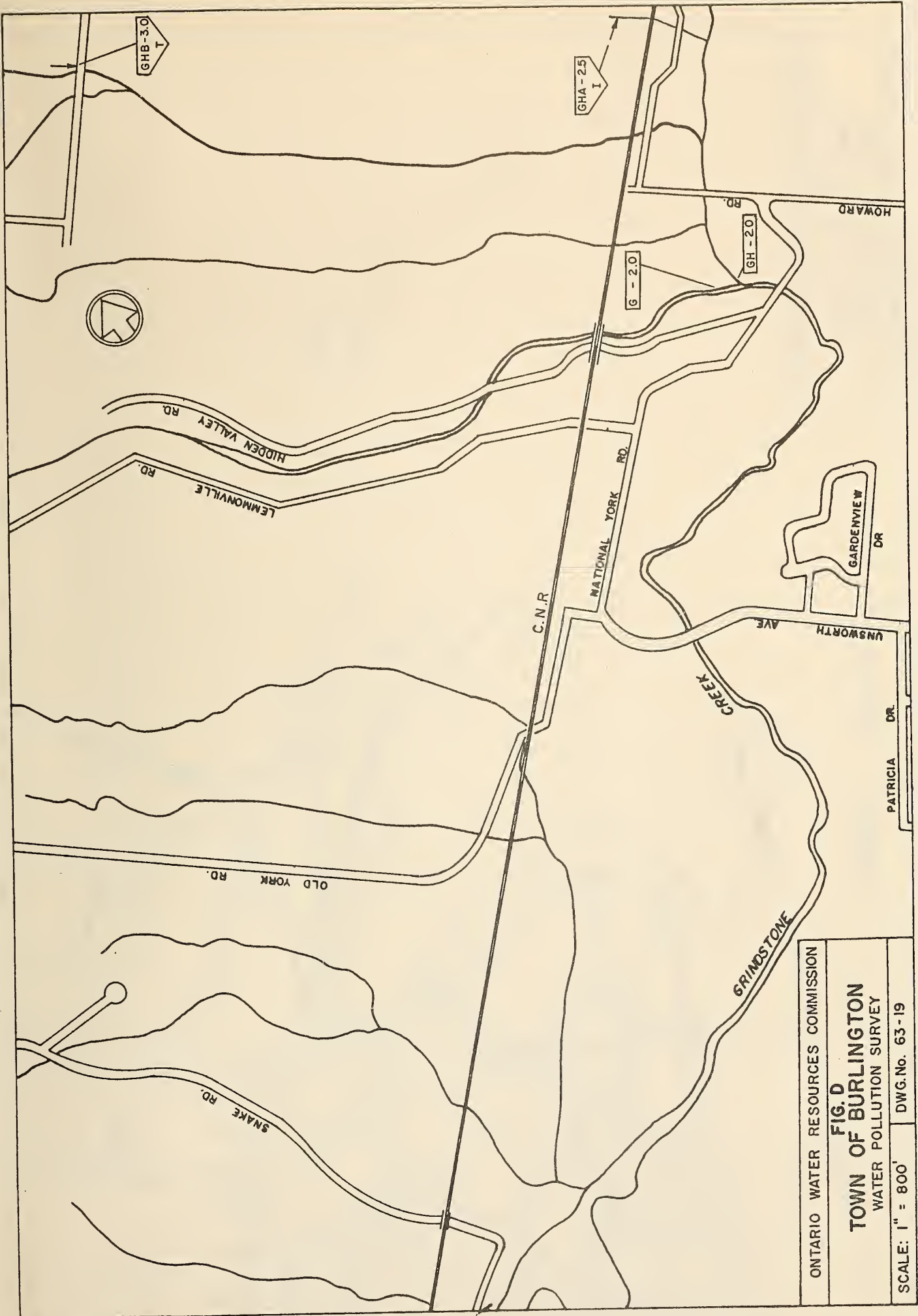
SCALE: 1" = 800'







ONTARIO WATER RESOURCES COMMISSION	
<b>FIG. C</b> <b>TOWN OF BURLINGTON</b> WATER POLLUTION SURVEY	
SCALE: 1" = 800'	DWG. No. 63-22



ONTARIO WATER RESOURCES COMMISSION	
<b>FIG. D</b>	
<b>TOWN OF BURLINGTON</b>	
WATER POLLUTION SURVEY	
SCALE: 1" = 800'	DWG. No. 63-19

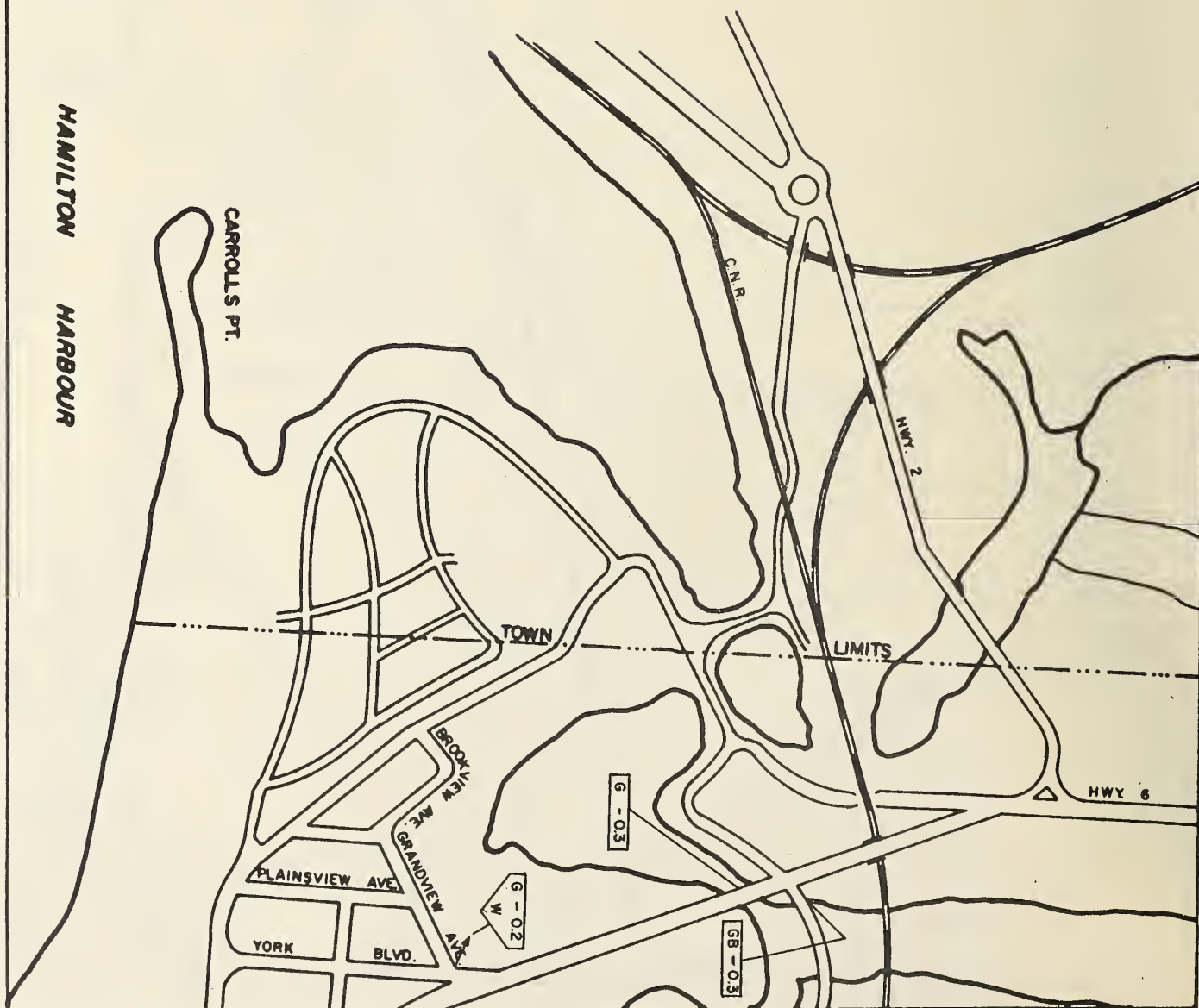
ONTARIO WATER RESOURCES COMMISSION

FIG. E

TOWN OF BURLINGTON  
WATER POLLUTION SURVEY

SCALE: 1" = 800'

DRAWING No: 63-93



HAMILTON

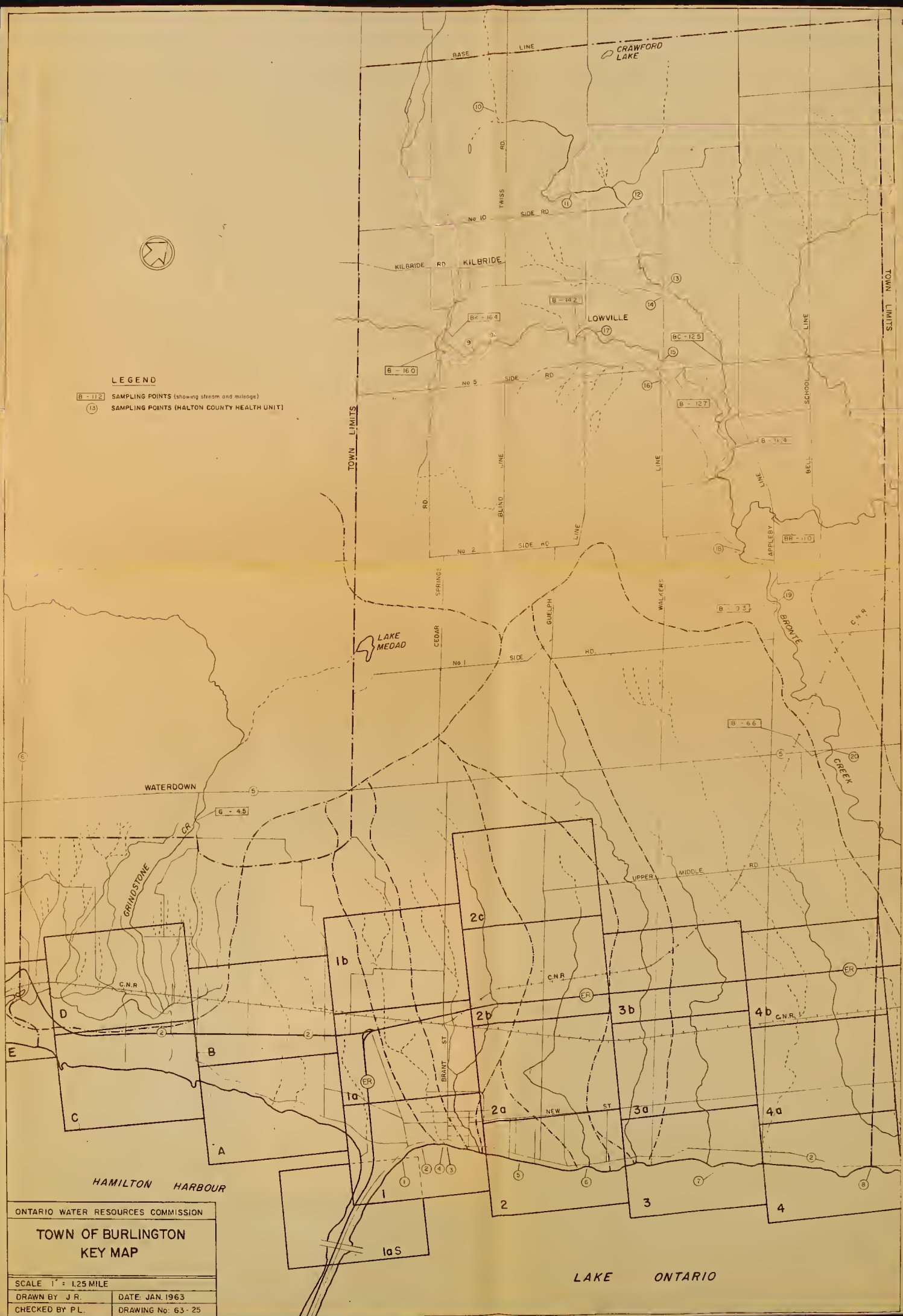
HARBOUR





LEGEND

- [B-112] SAMPLING POINTS (showing stream and mileage)  
[13] SAMPLING POINTS (HALTON COUNTY HEALTH UNIT)



ONTARIO WATER RESOURCES COMMISSION

**TOWN OF BURLINGTON  
KEY MAP**

SCALE 1" = 1.25 MILE

DRAWN BY J.R.      DATE: JAN. 1963

CHECKED BY P.L.      DRAWING No: 63-25

LAKE      ONTARIO





Ontario Water Resources Comm.  
 DIVISION OF SANITARY ENGINEERING.  
 Report on Water Pollution  
 Survey Town of Burlington.  
 1963.

MOE/BUR/WAT/ASIF

DATE	ISSUED TO
C.1	asif
Mar 20	R. Burton - 7418429
FEB 2 1970	York Mills College

MOE/BUR/WAT/ASIF  
 Ontario Water Resources Co  
 Report on water  
 pollution survey asif  
 c.1 a aa



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